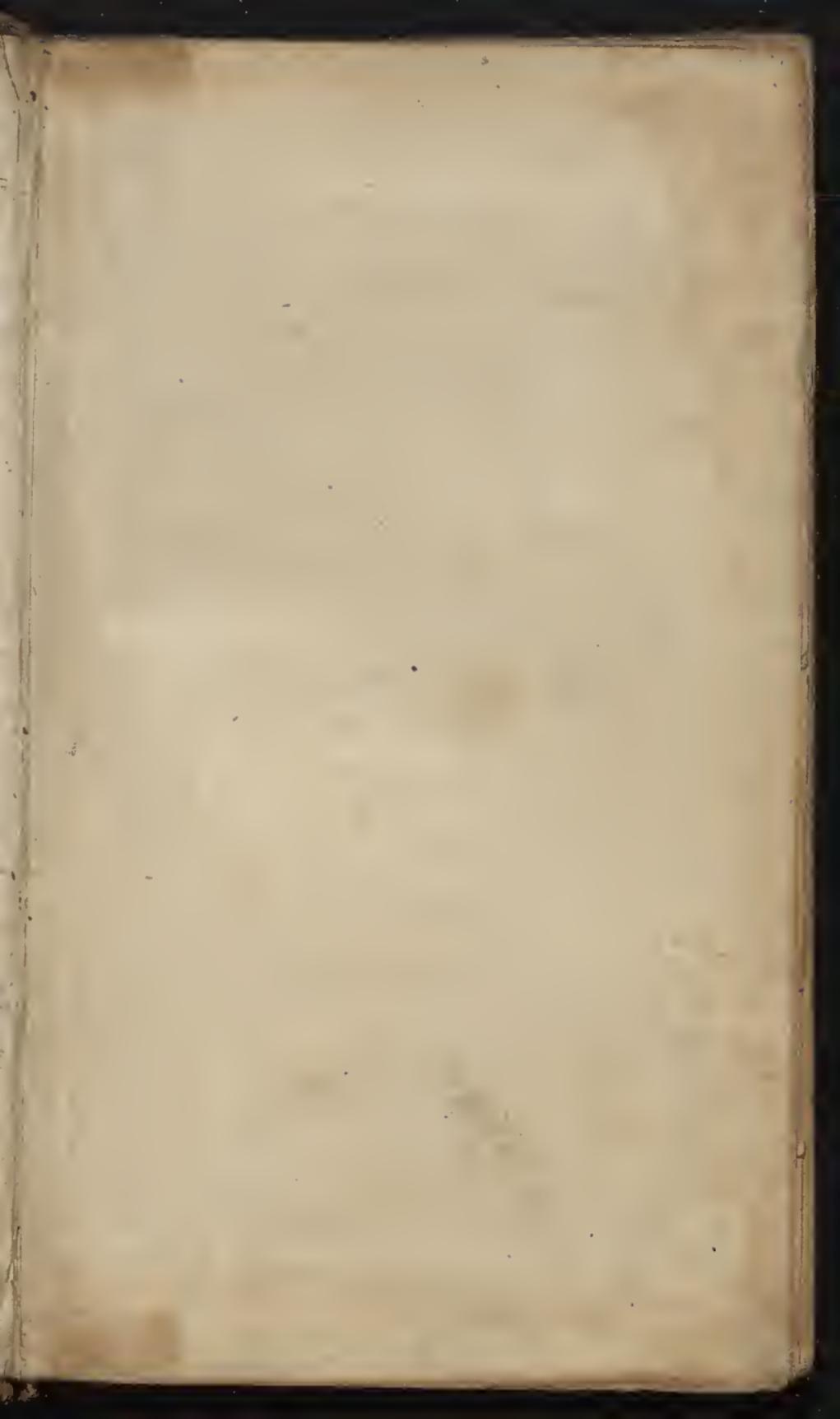
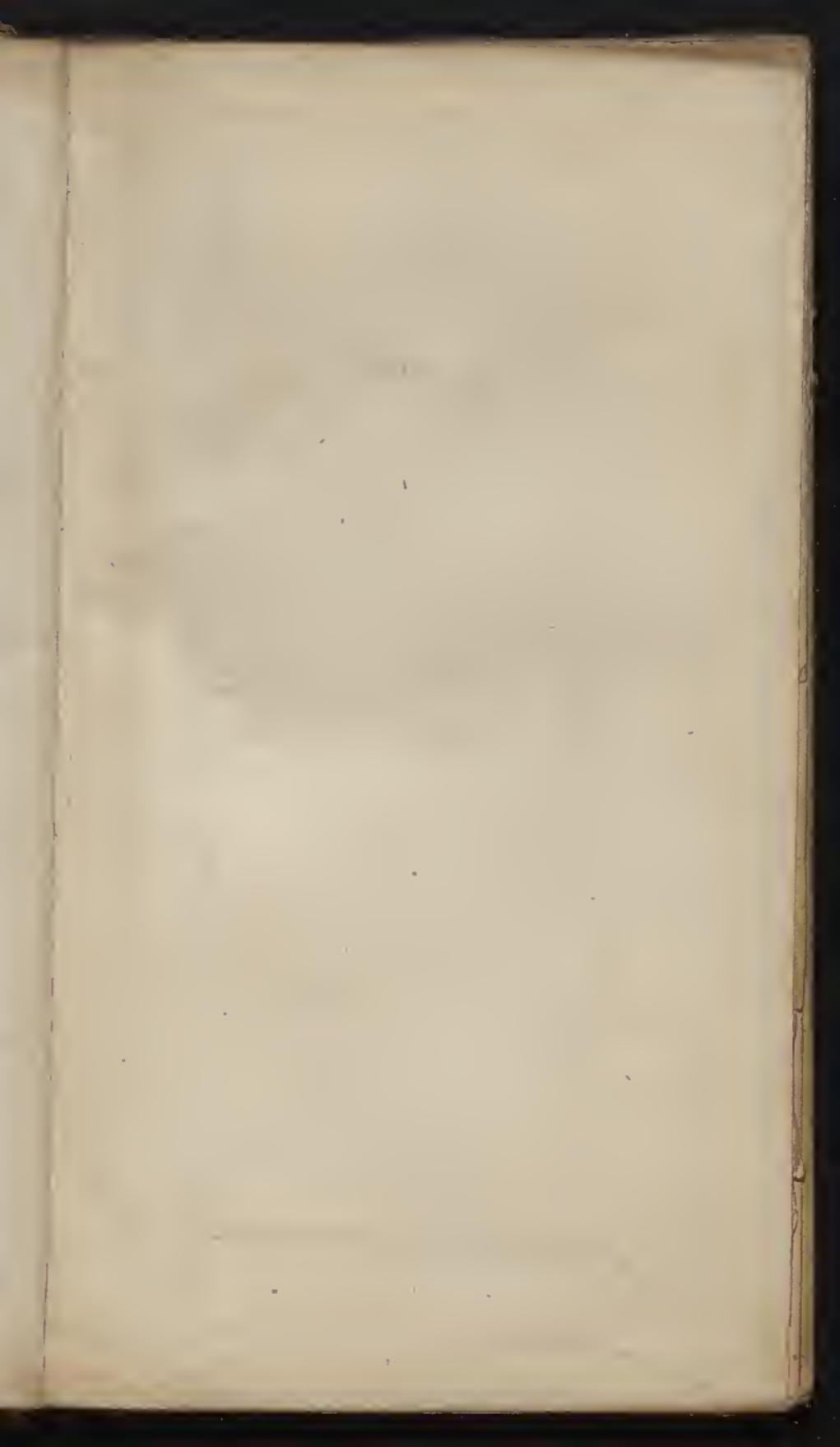
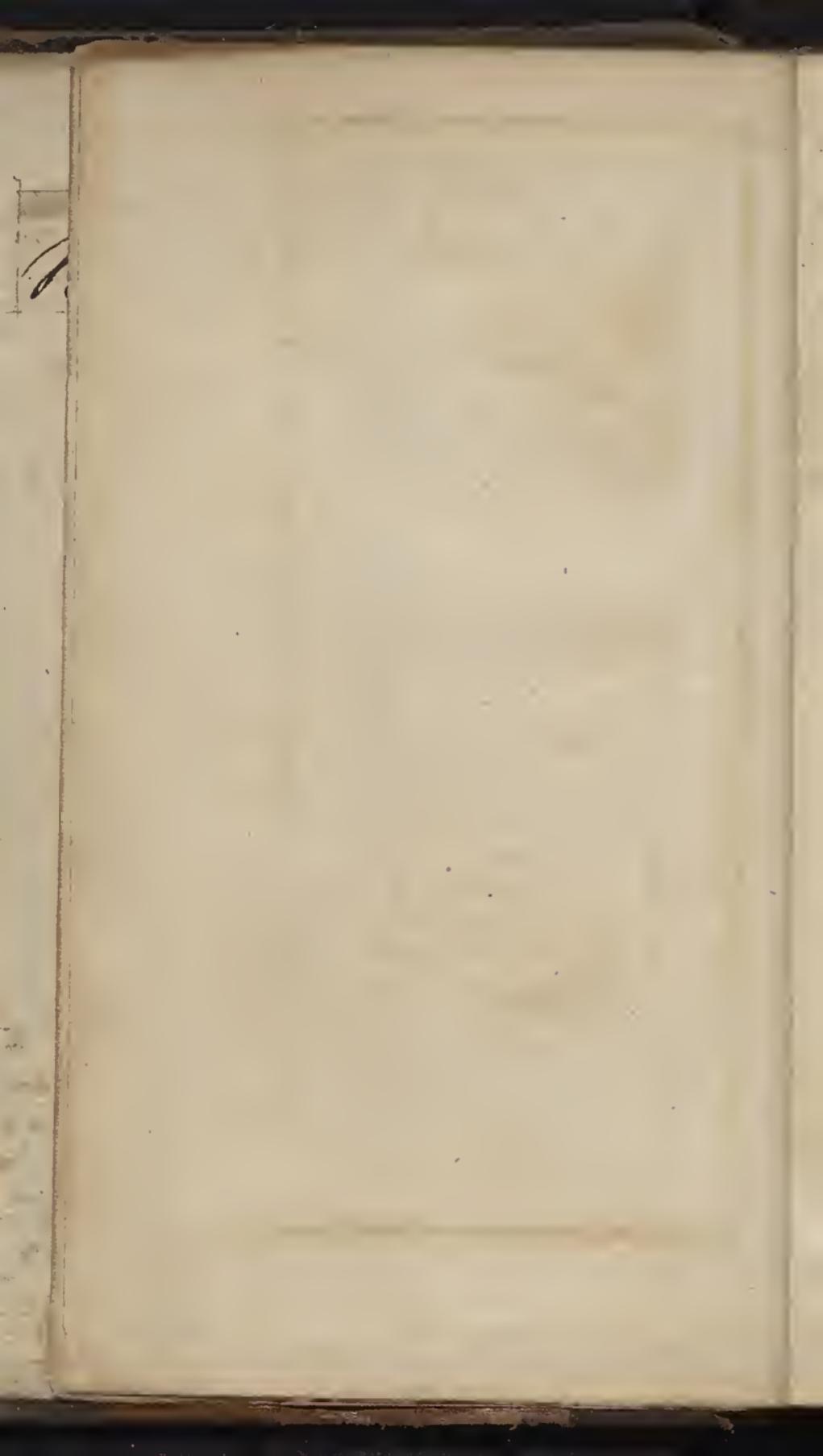
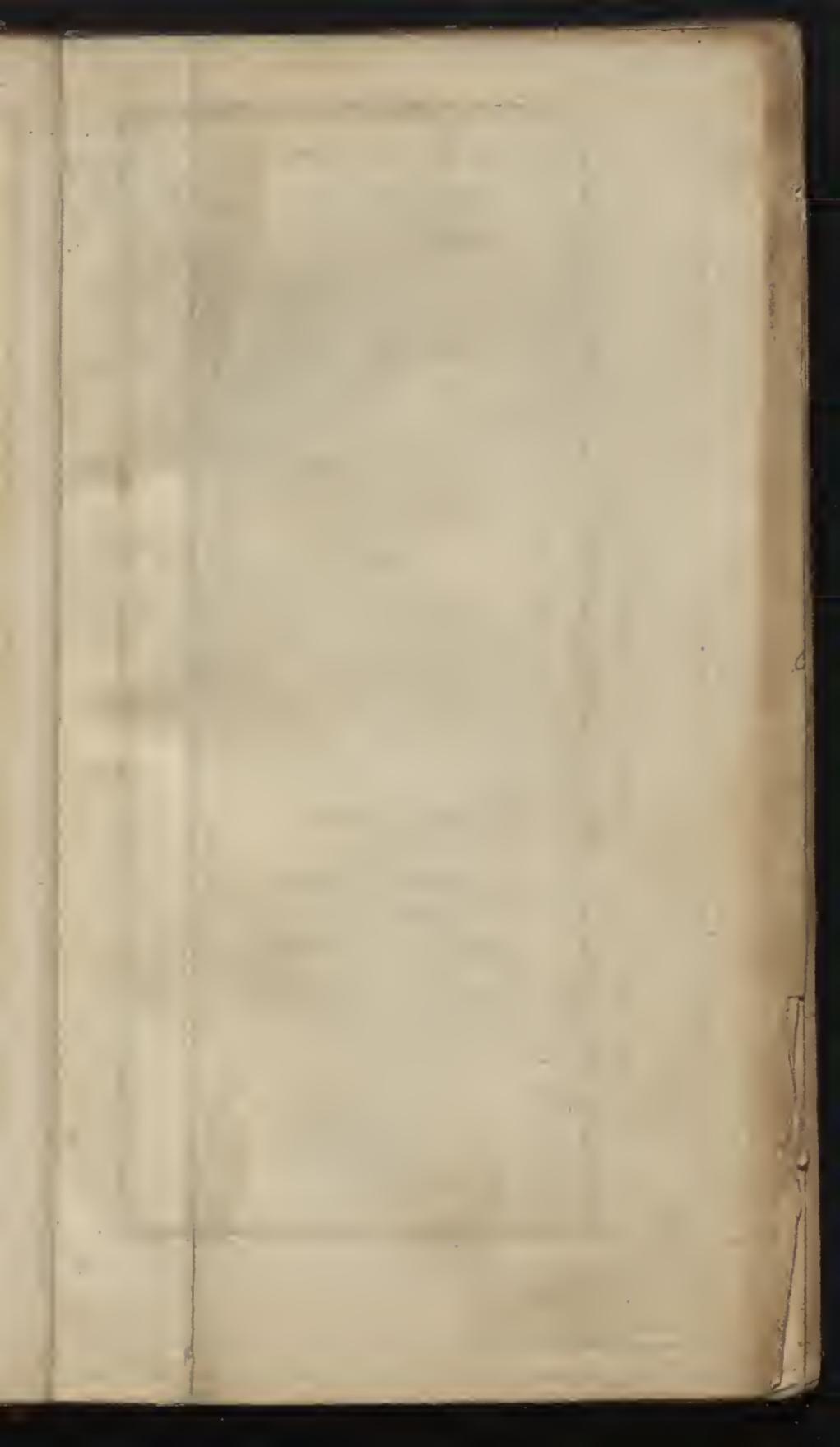


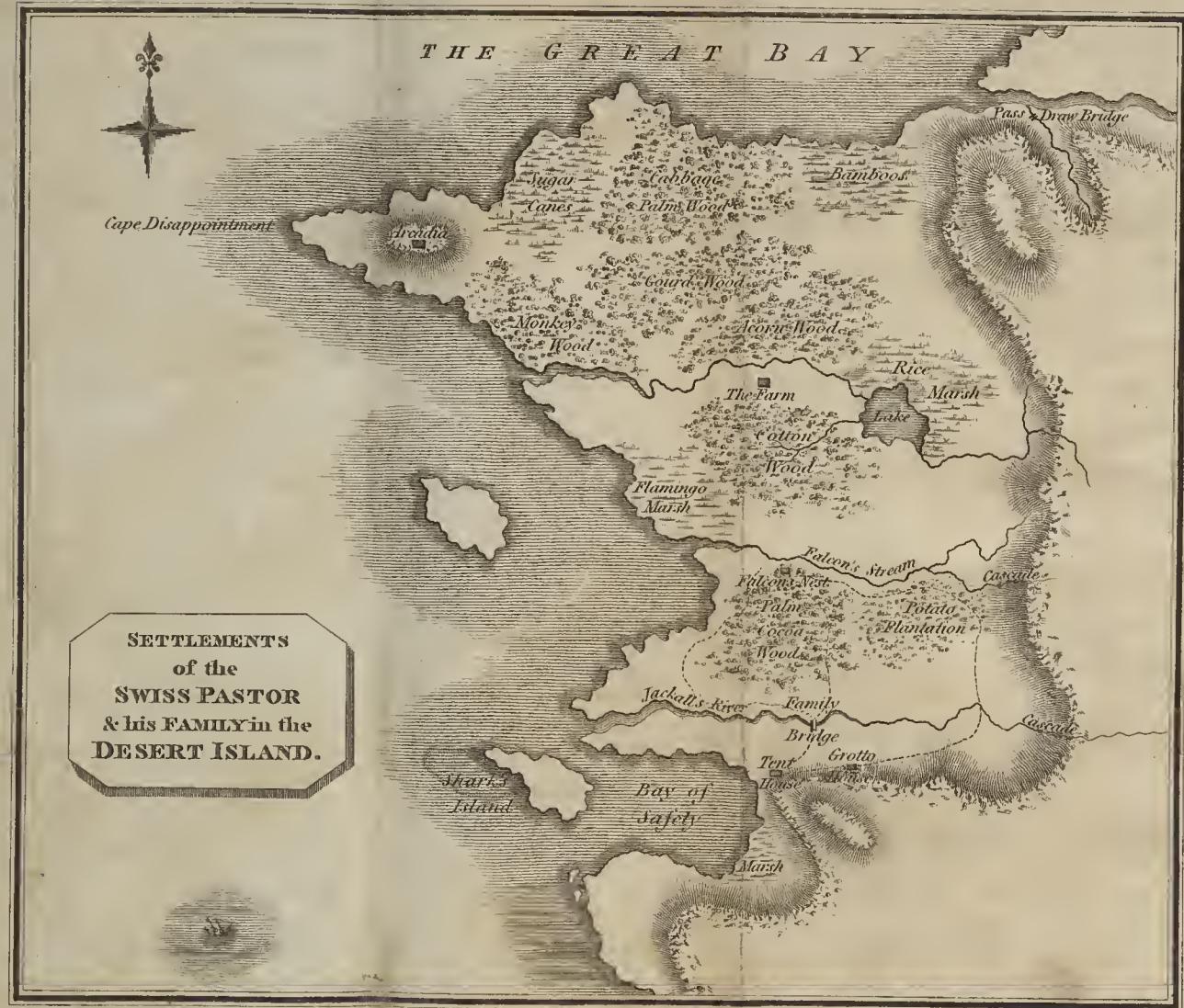
William Liskill











THE
FAMILY
Robinson Crusoe:
OR,
JOURNAL
OF A FATHER SHIPWRECKED, WITH HIS
WIFE AND CHILDREN, ON AN
UNINHABITED ISLAND.

TRANSLATED FROM THE GERMAN OF
M. WISS.

VOL. II.

London:
PRINTED FOR M. J. GODWIN AND Co.,
At the JUVENILE LIBRARY, 41, Skinner-Street;
AND HAILES, PICCADILLY.

1816.

950/1 MARCH

PRINTED BY RICHARD AND ARTHUR TAYLOR, SHOE LANE.

CONTENTS.

CHAPTER XVII.

<i>More stores from the wreck</i>	<i>Page</i> 1
---	------------------

CHAPTER XVIII.

<i>The tortoise harnessed</i>	12
-------------------------------------	----

CHAPTER XIX.

<i>Another trip to the wreck</i>	30
--	----

CHAPTER XX.

<i>The bake-house.....</i>	42
----------------------------	----

CHAPTER XXI.

<i>The pinnace and the cracker</i>	55
--	----

CHAPTER XXII.

<i>Gymnastic exercises ;—various discoveries ; —singular animals, &c.</i>	76
---	----

CHAPTER XXIII.

<i>Excursion into unknown countries</i>	116
---	-----

CHAPTER XXIV.

<i>Useful occupations and labours.—Embellish- ments ; a painful but natural sentiment .</i>	142
---	-----

CHAPTER XXV.

<i>A new excursion.—Palm-tree wine</i>	157
--	-----

CHAPTER XXVI.

<i>A new country discovered.—The troop of buf- falos ; a precious acquisition</i>	176
---	-----

CHAPTER XXVII.

The Malabar eagle, and sago manufactory.. 194

CHAPTER XXVIII.

Origin of some European fruit-trees.—Bees. 213

CHAPTER XXIX.

*Victory over the bees ;—winding stair-case ;
training of various animals ; divers manu-
factures ; fountain, &c.* 234

CHAPTER XXX.

*The wild ass ; difficulty in breaking it ;—the
heath-fowl's nest* 253

CHAPTER XXXI.

Flax, and the rainy season. 272

CHAPTER XXXII.

Spring ;—spinning ; salt.mine. 287

CHAPTER XXXIII.

House in the salt-rock ;—herring fishery. 307

CHAPTER XXXIV.

*New fishery ;—New experiments and chase ;
—New discoveries and house* 323

CHAPTER XXXV.

*Completion of two farm-houses ;—a lake ;—
the beast with a bill* 343

CHAPTER XXXVI.

The boat ;—progress in the abode of rocks. 358

THE
FAMILY. ROBINSON CRUSOE.

CHAPTER XVII.

More stores from the wreck.

I ROSE with the first crowing of the cock, before the rest of the family was awake, descended the ladder, and employed myself in carefully skinning the kangaroo, so as not to deface its beautiful mouse-coloured coat ; and it was really high time to think about it. Our dogs were so well satisfied the preceding evening with their meal on the entrails of the animal, that they became partial to it, and had just sprung up in the design of making a complete breakfast of the whole carcase: Before I was at the bottom of the ladder, they had torn off the head of the kangaroo, which I had suspended at some height by the hind feet, and, half friends

half foes, they were going to divide it amongst them, when my presence opportunely prevented the partition. It occurred to me, that as I had neither cellar nor safe to keep my provisions in, it behoved me to give them a slight correction : growling and barking, they took refuge under the roots, and the half-suppressed kind of howling they continued to make, awoke my wife, who, on missing me, came down alarmed to know what was the matter. For the love of God, exclaimed she, what has happened ? Are the dogs run mad, or have you lost your senses ? — Nothing of the kind, I answered ; I was only giving our dogs a short sermon on temperance and the necessity of self-control.— Then better it would be to enforce your precepts by example, to begin by subduing anger, and not by exercising your vengeance on poor faithful animals, who are innocent, and unconscious of the mischief they are doing.

Kind-hearted creature, said I : it is well known to me how glad you would be if there were no sticks in the world ! But I assure you I did not beat Turk and Ponto through anger or revenge, but from prudence and precaution ; and be persuaded I have not hurt them much : they modestly intended only to eat up our kangaroo, which you promised yourself such pleasure in cooking ; and unable as I was to acquaint them in the

canine tongue, that it was not placed there for their use, it was proper to let them know this in such a way as to deter them in future; otherwise, as they are strongest, they would end by devouring all our stock.

My wife owned I was in the right: but I observed her from a corner of my eye hovering about the roots, and patting the dogs to console them. As to myself, I set about stripping my kangaroo, and endeavoured to remove the skin entirely without injuring it; but this gave me so much trouble, and I advanced so slowly in the business, that all my little family were assembled about me and their mother, and calling out, Famine, before I had finished my work. Having completed it, I went to the stream to wash myself thoroughly, and then to the sailor's chest to change my coat, that I might make a decent appearance at breakfast, and give my sons an example of that cleanliness which their mother was at all times eager to inculcate. Breakfast over, I ordered Fritz to prepare every thing to go to Tent-House, and prepare our boat, that we might proceed to the vessel. At the moment of departure, wishing to take leave of all my family, I found that Ernest and Jack were wanting: their mother knew no more than myself what was become of them, but she thought they were gone to get some potatoes, which we wanted. I

charged her to reprove them a little for this, to prevent their accustoming themselves to stray from home alone and without leave, in an unknown country ; but they had taken Turk along with them this time, and I was therefore the less uneasy.

We began our journey after having taken an affectionate leave of my wife and of my little Francis. I left Ponto with her, and I entreated her not to be uneasy, and to commit herself to the care of the kind Providence who had till then so graciously watched over us, and who would again bring us back to her safe and sound, enriched with many things conducive to our welfare. But to bring her to reason on the subject of these trips to the vessel, was impracticable : I left her bathed in tears, and praying God that this might be the last.

We separated with mutual emotion, hastening our steps to make our stay the shorter, and we soon reached and crossed the bridge : at this moment, to our astonishment, we heard the shrill sounds of human voices, and almost at the same time we saw Ernest and master Jack come forth from a bush, delighted to have half alarmed us.—Ah ! did not you think we were savages ? said Jack ; —or some of the vessel's company ? continued Ernest.

—Or rather, said I, two little thought-

less rogues whom I soon knew, and am much inclined to chide as they deserve, not for their little artifice, but for having left their home without permission.

Ernest.—Oh! father, we have such a desire to go with you to the vessel, and we were afraid you would refuse us if we asked you; but we thought that when you saw us so near to the place, you would consent to our accompanying you.

Very badly argued, my young gentleman, replied I. At Falcon's Stream I might perhaps have consented, although I have so many things to take, that it would be wrong to let you occupy a place in the boat; but as it is, I would on no account leave your poor mother in anxiety the whole day as to what is become of you, and you cannot yourselves desire it: besides, I have a commission to give you for her that I have much at heart. I then requested them to tell her that it was probable we should be forced to pass the night on board the vessel, and not return to her till the evening of the following day. I knew that was what she most feared, and I had wanted resolution to apprise her of this possibility: I was to blame for this weakness, for not to see us return at the expected time was still more painful; yet it was of essential consequence to get out of the vessel, if it yet remained afloat, all that could be saved,

as every moment might complete its destruction, and all our future hopes be swallowed up with it. With this view I told my sons what they should say to their mother; I exhorted them to obey and to assist her; and that their excursion might not be useless, I made them collect some salt, and I enjoined them to be at Falcon's Stream before noon. I suffered in knowing the double anguish of my poor wife, resulting from our departure and the prolonged absence of two of her sons. To be sure of the fulfilment of this order, I requested Fritz to lend Ernest his silver watch, and told him he would find a gold one in the vessel, in which case he would allow his brother to keep the one he lent him, and that we might perhaps get another for Jack. This hope filled them with joy, and consoled them for not going on with us.

After having bid adieu to our dear boys, we got into the boat, and we left the shore to gain the current of the stream: thus we quickly cleared Safety Bay, and reached the vessel, whose open side offered us an ample space to get up it. As soon as we had got on board and our boat was securely fastened, our first care was to look out for fit materials to construct a raft. I wished to begin by executing an excellent idea suggested by my son Ernest. Our boat being built of staves had neither room nor solidity enough to

carry a considerable burthen ; we therefore looked about, and soon found a sufficient number of water-casks which appeared to me very proper for my intended new enterprise. We immediately emptied them, then replaced the bungs carefully, and threw the casks over-board, after securing them by means of ropes and cramps, so as to keep them together at the vessel's side : this completed, we placed a sufficient number of planks upon them to form a firm and commodious platform or deck, to which we added a gunwale of a foot in depth all round, to secure the lading. Thus we contrived to possess a very handsome raft, in which we could stow thrice as much as in our boat. This laborious task had taken up the whole day ; we scarcely allowed ourselves a minute to eat a mouthful of cold meat we had provided for the expedition, that we might not lose any time in looking for the provisions on board the vessel. In the evening, Fritz and I were so weary, that it would have been impossible for us to row back to land, even if our business had not detained us ; we therefore came to the necessary resolution of passing the night on board ; and having taken all due precautions in case of a storm, we reposed ourselves in the captain's cabin, on a good elastic mattress essentially different from our hammocks : in fact, it so lulled us to rest, and

induced such sound repose, that our prudent design to watch in turn for fear of accident, quite escaped us, and we both slept heavily, side by side, till broad day-light opened our eyes, when we awoke with lively gratitude to that Providence to whom we were indebted for the quiet and comfortable night we had passed. We rose, and actively set to work to load our raft.

In the first place we completely stripped the cabin which had been occupied by my family on board the vessel, removing every thing it contained which belonged to us previous to the fatal event of the wreck: from it we proceeded to the one in which we had slept so well, and carried off the very doors and windows, with their appendages; some valuable chests of the officers were there: but this discovery and the rich lace clothes which seemed to court our grasp, were less acceptable to us than the carpenter's and gunner's chests, containing all their tools and implements: those we could remove with levers and rollers, were put entire upon the raft; and we took out of the others what rendered them too heavy. One of the captain's chests was filled with a number of costly articles, which no doubt he meant to dispose of to the opulent planters of Port Jackson, or among the savages. In the collection were several gold and silver watches,

snuff-boxes of all descriptions, buckles, shirt-buttons, necklaces, rings, in short an abundance of all the trifles of European luxury; there was also a strong box full of louis d'or and dollars, which attracted our notice less than another containing a very pretty table-service of fine steel, which we had substituted for the captain's that were silver, and for which my wife had shown no small regard: but the discovery that delighted me most, and for which I would readily have given the box with the louis, &c. was a chest containing some dozens of young plants of every species of European fruits, which had been carefully packed in moss for transportation. I perceived pear, plum, almond, peach, apple, apricot, chesnut trees, and vine shoots. I beheld with a feeling I cannot describe, those productions of my dear country, which once so agreeably embellished my rural dwelling, and which, if God vouchsafed to bless them, would thrive in a foreign soil. We discovered a number of bars of iron and large pigs of lead, grinding-stones, cart-wheels ready for mounting, a complete set of farrier's instruments, tongs, shovels, ploughshares, rolls of iron and copper wire, sacks full of maize, pease, oats, vetches, and even a little hand-mill. The vessel had been freighted with every thing likely to be useful in an infant colony so distant; nothing had

been forgotten. We found a saw-mill, in a separated state, but each piece numbered, and so accurately fitted, that nothing was easier than to put it together for use.

I had now to consider what of all these treasures I should take or leave. It was impossible to carry with us in one trip such a quantity of goods ; and to leave them in the vessel, ready to fall to pieces and threatened every moment with complete destruction, was exposing ourselves to be wholly deprived of them, while every article so lost would be a subject of regret to us.

Ah ! said Fritz, let us leave, in the first place, this useless money and the chest of trinkets ; except the watches we promised my brothers : all the rest can be of no service to us.

It gives me pleasure, my boy, to hear you speak thus of gold, that idol so universally adored : we will do, then, as you wish, and determine upon taking with us what is really useful, such as the powder, lead, iron, the corn and the fruit-trees, implements for gardening and agriculture ; let us take as many as possible of these : if we should have any room left, we can then select a few of the objects of luxury : however, begin by taking from the chest the two watches I have promised, and keep the best of them for yourself.

We then loaded our raft, not without difficulty and hard labour; we moreover stowed away for use in a chest, a large and handsome fishing-net, quite new, and the vessel's great compass. With the net, Fritz found luckily two harpoons and a rope windlass, such as they use in the whale fishery. Fritz asked me to let him place the windlass, with the harpoons attached to the end of the rope, over the bow of our tub-boat, and thus hold all in readiness in case of seeing any large fish; and as I thought it was unusual to meet with these so near the shore, I indulged him in his innocent fancy.

It was afternoon before we had finished our lading; for not only our raft was as full as it could hold, but our boat likewise.

Having well and completely executed our undertaking, both as to construction and lading, we stepped into the tub-boat, and with some small difficulty, which a little reflection and a few experiments soon enabled us to overcome, we pushed out for the current, drawing our raft triumphantly after us with a stout rope, which we had been careful to fasten securely at its head.

CHAPTER XVIII.

The tortoise harnessed.

THE wind was in a humour favourable to our undertaking, and briskly swelled our sail; the sea was calm, and we advanced without fear at a considerable rate. Fritz had been looking steadfastly for some time at something of a large size which was floating at some distance on the water, and he now desired me to take the glass and see what it could be. I soon perceived distinctly that it was a tortoise, which, agreeably to the habits of its singular species, had fallen asleep in the sun on the surface of the water, and we observed that it did not in the least appear sensible of our approach. No sooner had Fritz gained this information, than he earnestly entreated me to steer softly within view of so extraordinary a creature, that he might examine it at his ease. I readily consented; but as his back was towards me, and the sail was between us, I did not observe what he was about, till a violent jerk of the boat, a sudden turning of the windlass, and then a second jerk, accompanied by a rapid motion of the boat, gave me the necessary explana-

tion. For Heaven's sake what are you about, Fritz? exclaimed I. Have you a mind to destroy us with your thoughtlessness, which has put it out of my power to govern the boat?

—I have caught him,—I touched him, cried Fritz, without hearing one word I had been saying.—The tortoise is ours, it cannot escape, father! Is not this then a valuable prize, for it will furnish dinners for us all for many weeks!

I soon admitted the idea that in reality the harpoon had secured the animal, which, feeling itself wounded, thus agitated the vessel in its endeavours to be disengaged, for the rope of the harpoon was necessarily fastened at the other end to the windlass. I quickly pulled down the sail, and seizing a hatchet, sprung to the boat's head to cut the rope, and let the harpoon and the tortoise go; but Fritz caught hold of my arm, conjuring me to wait a moment, there being no immediate cause for alarm, and not so hastily bring upon him the mortification of losing, at one stroke, the harpoon, the rope, and the tortoise; he proposed watching himself, with the hatchet in his hand to cut the rope suddenly should any sign of danger appear. I yielded to his entreaties, after a due exhortation to him to take good care not to upset the boat, or run her upon the rocks.

Thus then, drawn along by the tortoise, we proceeded with a hazardous rapidity, and having no small difficulty to keep the rudder in a straight direction, and so to steady the boat, as to prevent her yielding to the irregular motions of so singular a conductor. In a little time I observed that the creature was making for the sea ; I therefore again hoisted the sail ; and as the wind was to the land, and very brisk, the tortoise found resistance of no avail : he accordingly fell into the track we desired to take, and we soon gained the current which had always received us in our visits to and from the wreck : he drew us straight towards our usual place of landing, and by good fortune without striking upon any of the rocks which so much abound in that spot. We, however, did not disembark without encountering one difficult adventure. I perceived that the state of the tide was such, that we should be thrown upon one of the sand-banks, and this accordingly took place : we were at this time within a gun-shot of the shore ; the boat, though driven with violence, remained perfectly upright in the sand. I stepped into the water, which did not reach far above my knees, for the purpose of conferring upon our conductor his just reward for the alarm he had caused us, when he suddenly gave a plunge, and I saw him no more ; fol-

lowing the rope, I however soon found the tortoise stretched at length at the bottom of the water, where it was so shallow that I was not long in finding means to put an end to his pain by cutting off his head with the hatchet ; when he soon bled to death. Being now near Tent-House, Fritz gave a halloo, and fired a gun, to apprise our relatives that we were not only arrived, but arrived in triumph. This soon produced the desired effect : the good mother and her three young ones soon appeared, running towards us ; upon which Fritz jumped out of the boat, placed the head of our sea-prize on the muzzle of his gun, and walked to shore, which I reached at the same moment ; and all were once more received with the kindest salutations, and such questions as kindness best knows how to propose.

After some gentle reproaches from my wife, for leaving her and the boys for so long a time, the history of the tortoise was related in due form, and excited due interest and much meriment in our auditors. The tender-hearted mother, after heaving a sigh for the hard fate of the creature, began to shudder at the thought of the danger we had been exposed to, and the escape we had effected. We all now fell to a new examination of the adventure, and were struck with surprise that Fritz should so exactly have hit the vul-

nerable part of the animal, at the first plunge of the harpoon : next that the tortoise should have gone to sleep, and left this very part exposed, contrary to his usual habit of drawing the neck within his shell ; and lastly, that with the harpoon stuck in his flesh, and sunk still deeper by the act of drawing in his head to save himself, he should yet have been able to pull a heavy laden boat and a raft tied to it, along, with even an alarming degree of rapidity.

Our conversation being ended, I requested my wife to go with two of the younger boys to Falcon's Stream, and fetch the sledge and the beasts of burden, that we might not fail of seeing at least a part of our booty from the ship put safely under shelter the same evening. A tempest, or even the tide, might sweep away the whole during the night ! We took every precaution in our power against the latter danger, by fixing the boat and the raft, now, at the time of its reflux, as securely as we could without an anchor. I rolled two prodigious masses of lead, with the assistance of levers, from the raft upon the shore, and then tied a rope to each, the other ends of which were fastened, one to the raft, and the other to the boat, and thus satisfied myself that they could not easily be forced away.

While we were employed on this scheme,

the sledge arrived, and we immediately placed the tortoise upon it, and also some other articles of light weight, such as mattresses, pieces of linen, &c.; for I reckoned that the animal itself weighed at least three quintals. The strength of our whole party was found necessary to move it from the raft to the sledge: we therefore all set out together to unload it again at Falcon's Stream. We pursued our way thither with the utmost gaiety of heart, and found the time pass both agreeably and quickly, in answering the numerous questions with which the three youngest boys assailed us, as to the nature and amount of the treasures we had brought from the vessel. The chest containing the articles in silver, and another filled with trinkets and utensils made of different kinds of metals, the most powerfully excited their interest; for Fritz had dropped a hint of what was in them, and nothing could exceed the measure of their curiosity.—Are they left on the raft or in the boat? asked Ernest. We will open them to-morrow, and I shall have my watch.

Jack.—I assure you, I shall not be content with only a watch; I must have, since I hear there are so many, a snuff-box also.

Francis.—And I shall ask for a pretty purse filled with louis.

Father.—Vastly well imagined, my young ones.—Jack intends then, I presume, to take

now and then a pinch of the snuff he has not got, and Francis perhaps means to sow his louis that they may produce him a crop.

Jack.—Now, father, you are for this once mistaken ; I have no liking for snuff, and know very well we have not any : what I want the box for is, to preserve in it the seeds I mean to collect from all the charming plants that we see around us, as, should we ever return to Europe, I could then have them in our garden. I have also found some chaffers, and different kinds of flies, which I should also be glad to keep.

Francis.—And I should keep my money to buy some of the nice cakes mamma used to give us. If we stay here long, I dare say there will be a fair ; and then I will buy as many as will last us all a very long time, for I like sweet cakes better than the hard biscuits mamma gives us now.

Father.—You will wait for a fair long enough to tire the patience of a little boy like you, Francis ; but if you are so fond of sweet cakes, I should advise you to make them yourself, with some of the honey you get so cleverly.—The poor child blushed like scarlet ; he, a few days before, had discovered a swarm of bees and some fine honey-combs in a tree, and had attempted to beat down a little of them with a stick :—the whole swarm rushed out enraged, and light-

ed on him, so that his face and hands were severely stung: he thus paid dear for his discovery, which might, however, at some time or other, prove a useful acquisition to us.

In this trifling kind of prate we beguiled the time, till we reached the foot of our castle. Our first concern, now, was the tortoise, which we immediately turned on his back, that we might strip off the shell, and make use of some of the flesh while it was fresh. My wife expressed her fear, that we should fail in our attempt; but taking my hatchet, I separated the upper and under shell all round, which were joined together by cartilages. The upper shell of the tortoise is extremely convex; the under, on the contrary, is nearly flat. Having succeeded in dividing them, I cut away as much of the flesh of the animal as was sufficient for a meal, and then laid the remaining mass carefully and neatly on the under shell, which served as a dish, recommending to my wife to cook what I had cut off, on the other shell, with no other seasoning than a little salt, and pledged myself that she would by this means produce a most luxurious food.

My wife asked leave, however, to take away the *green*-coloured part of the flesh, which she said she could not even look at without distaste.—I answered that she was

wrong in this ; that it was not unusual, for a thing that displeased the eye, to be agreeable to the taste : I informed her that the green was the fat of the animal, and would add to the fine flavour and general moisture of the dish : but, added I, if you think it is too abundant, you can take a part and preserve it, by melting, for future use. We will then, said I, put what we mean, to keep in salt, and distribute the head, the entrails, and the feet to the dogs ; for all, you know, must live.

Oh dear papa, cried Francis, do give me the shell, it will be such a pretty plaything !

No, no, bawled out another : and one and all contended for the preference. I imposed silence, declaring that the right was entirely in Fritz, since it was he who had harpooned the animal, who, but for his dexterity and skill, would be at this moment existing in the sea.—But, continued I, it may be well to ask what each of you thought of doing with the shell, if he had obtained it ?

Ernest.—I should turn it into a shield to defend myself with, if the savages should come upon us.

Father.—Ah, there is my egotist again ; this is as I expected ; but let us see in what way you would use it ? You would fling it across your shoulders no doubt, and take to your heels manfully.—I fancy I have guessed

right, my poor Ernest, have I not?—And you, Jack, what have you to say?

Jack.—I should make a nice little boat of it, which would help to amuse us all. I was thinking how cleverly we could fill it with potatoes, or the other things we want to take from Tent-House to Falcon's Nest; it would glide along so nicely with the stream, and we should be saved all the fatigue we now have in carrying them.

Father.—Your scheme, I grant, is not ill-imagined; but a small raft or an old chest would do just as well for your purpose.—And now for my little Francis; I wonder what pretty plan he had thought of?

Francis.—I thought I should build a little house, papa, and the shell would make such a nice roof to it!

Father.—Vastly well, my lads, if we had only our amusement or our ease to think of; but I want you all to form the habit of thinking and acting for the general good, rather than of what will most gratify or accommodate his single self.—Now, then, let me ask to what use Fritz, the only rightful claimant to the shell, had intended to apply it?

Fritz.—I thought, father, of cleaning it thoroughly, and fixing it by the side of our river, and keeping it always full of pure wa-

ter for my mother's use, when she has to wash the linen or cook our victuals.

Father.—Excellent, excellent, my boy ! all honour to the founder of the *pure water-tub* ! This is what I call *thinking for the general good*. And we will take care to execute the idea as soon as we can prepare some clay, as a solid foundation for its bottom.

Jack.—Hah, hah ! Now then it is my turn ; for I have got some clay, which I have put by to keep for use, behind those old roots yonder.

Father.—And where did you get it, boy ?

Mother.—Oh, you may apply to me for this part of the information ; to my cost I know where the clay was got.—This morning early, my young hero falls to digging and scrambling on the hill you see to the right, and home he comes with the news that he has found a bed of clay ; but in so dirty a condition himself, that we were obliged to think next of the washing-tub.

Jack.—And if I had minded a little dirt, mother, I should not have discovered this bed of clay, which you will see will be of great use to us. As I was returning from looking for potatoes, I thought I would take the high path along the river, just to see how rapidly it runs and forms those nice cas-

cadés : by and by I came to a large slope, watered by the river ; it was so slippery that I could not keep upon my legs : so I fell, and dirtied myself all over : on looking, I saw that the ground was all of clay, and almost liquid, so I made some of it into balls, and brought them home.

Mother.—And boasted of your discovery as if you had made it in consequence of the most earnest desire to be of use, while the benefit was the result of chance alone. But I will not put you further to the blush, my boy ; you at last confess the truth, and for this deserve our praise.

Ernest.—When the water-tub is complete, I will put the roots I have found to soak a little in it, for they are now extremely dry. I do not exactly know what they are ; they look something like the radish or horse-radish, but the plant from which I took them was almost the size of a bush : being ignorant, however, of its name or nature, I have not yet ventured to taste the roots, though I saw our sow eat heartily of them.

Father.—It was quite right to be cautious, my son : but let me look at these roots. I am always glad to hear that you observe and reflect upon all the objects which fall in your way. How did you first discover them?

Ernest.—I was rambling about, father, and met with the sow, who with her snout

was turning up the earth under the plant I have been speaking of, and stopped only to chew and swallow greedily something she seemed to find there. I drove her away ; and on looking into the place, I found a knot of roots, which I tore out and brought home.

Father.—If my suspicion is right, you have made a beneficial discovery, which with the assistance of our potatoes may furnish us the means of existence as long as we may remain in this island ! I am tolerably certain that these roots are *manioc*, of which the natives of the West Indies make a sort of bread or cake which they call *cassave*. But if we would make this use of it, we must first carry it through a certain preparation, without which these roots possess pernicious properties. If you are sure of finding the same place, or we can collect enough in any other, we will secure a sufficiently large quantity for our first experiment, which I have great confidence will succeed.

By the time of ending this discourse, -we had also finished unloading the sledge, and I bade the three eldest boys accompany me to fetch another load before it should be dark. We left Francis and his mother busy in preparing what we indeed stood much in need of after a day of such fatigue, a refreshing meal for supper, the tortoise having

presented itself most opportunely for this effect. I promise you, cried my wife, as we were moving off, you shall not at your return find reason to complain.

As we walked along, Fritz asked me if this handsome shell was of the kind so much valued in Europe for making into boxes, combs, &c. ? and if it was not a pity to use it for a water-tub?

I replied, that in our deserted situation the utility of a thing formed its greatest, and indeed only value. According to this way of reasoning then, were your water-tub of diamonds, it would be of no more worth to us than the rudest stone, if in such a form as to be able to contain water. However, dear boy, I shall inform you, for your consolation, that our tortoise, which makes such excellent food, is not of the species, the shells of which are so much esteemed for the uses you have mentioned. This latter kind, which is called *caret*, does not furnish a wholesome food, its flesh being no less remarkable for its bad and unpalatable properties, than those of our tortoise for savouriness and nourishment. The shell of the *caret* tortoise is prepared for use by the action of heat, which separates the layer that from its colour and transparency is so attractive, from the inferior and useless parts. It is usual to preserve even the clippings of the real tortoise shell

and unite them by heat for making articles of small price ; but these are much more liable to break than the former, and of course possess very little of their beauty.

We now reached the raft, and took from it as many effects as the sledge could hold, or the animals draw along. The first object of my attention was to secure two chests which contained the clothes of my family, which I well knew would afford the highest gratification to my exemplary wife, who had frequently lamented that they were all compelled to wear clothes that were not their own ; reminding her at every moment, she said, how much they might be wanted by their proper claimants. I reckoned also on finding in one of the chests some books on interesting subjects, and principally a large handsomely printed Bible. I added to these, four cart-wheels and a hand-mill for grinding ; which, now that we had discovered the manioc, I considered of signal importance. These and a few other articles completed our present load.

On our return to Falcon's Nest, we found my wife looking anxiously for our arrival, and ready with the welcome she had promised, of an ample and agreeable repast ; nor was her kind humour diminished by the view of the acquisitions we now added to her store of necessaries. Before she had well examined

them, she drew me, with one of her sweetest smiles, by the arm,—Step this way, said she, and I too will produce something that will both refresh and please you. And leading to the shade of a tree,—This, continued she, is the work I performed in your absence, pointing to a cask of tolerable size, half-sunk into the ground, and the rest covered over with branches of trees. She then applied a small cork-screw to the side, and filling the shell of a cocoa-nut with the contents, presented it to me. I found the liquor equal to the best canary I had ever tasted.—How then, said I, have you performed this new miracle? I cannot believe the enchanted bag produced it.—Not exactly, replied she; for this time it was an obliging white wave which threw on shore the agreeable liquid with which I have now the pleasure to regale you. I took a little ramble in your absence yesterday, to see what I could find, and behold how well my trouble was rewarded! The boys ran for the sledge, and had but little difficulty in getting it to Falcon's Stream, where our next care was to dig a place in the earth, to receive and keep it cool. We guessed it must contain some sort of wine; but to be quite sure, Ernest and Jack bored a small hole in the side, and inserting a hollow reed, they contrived to taste it, and assured me the cask was filled with a most delicious beverage.

I now thought it was high time to forbid their proceeding any further with the *tasting*, fearing for the effect on their poor heads; and I closed up the hole with a small piece of wood. I have nothing more to relate, but that the boys kept the secret, as I desired them.

My wife and I agreed that we would now recompense them, by giving each a small glass of the precious liquor; but the young creatures took such a fancy to it, that they obtained again and again a little more, till at last we perceived their spirits so much raised, that we were obliged to refuse their further entreaties with gravity and firmness; observing to them, that man is required to restrain his appetite, and not to abuse, by excesses, the good things a bountiful Providence allows us for the purpose of rejoicing our hearts and strengthening our bodies when used with moderation.

By means of this little lecture I succeeded in appeasing their turbulence, and in drawing them from the dangerous vicinity of the cask. For my own part, the generous character of the wine had so invigorated me, that I found myself able to complete my day's work, by drawing up the mattresses we had brought from the ship, to our chamber in the tree, by means of a pulley. When I had laid them along to advantage, they look-

ed so inviting, that I could scarcely resist my desire of at once committing myself to the kind relief they seemed to offer to my exhausted strength.

But now the tortoise, through the voice of my wife, laid claim to my attention. The savoury smell ascended to our castle ; I hastened down, and we all partook heartily of the luxurious treat. We returned thanks to God, and speedily retired to taste the blessing of sweet and sound repose upon our mattresses.

CHAPTER XIX.

Another trip to the wreck.

I ROSE before day to go to the sea-side and inspect our two vessels. My family did not hear me depart, and I was unwilling to disturb their balmy sleep, that sweet restorative of strength, so requisite for children. I therefore gently descended the ladder. Above, the scene was all repose ; below, I found every thing in life and motion. The dogs jumped about me for joy, perceiving I was going out ; the cock and the hens flapped their wings and chuckled, and our goats shook their long beards as they browsed ; but the ass, the only creature amongst them I was likely to want at that time, still lay stretched at full length on the grass, and discovered no inclination for the morning jaunt I designed for him. Taking less of the creature's feelings into the account than my own occasion for his services, I quickly roused and harnessed him singly for the sledge, not wishing to yoke the cow to it before she had been milked. It was unnecessary to call the dogs after me. As I walked towards the shore, animated at different moments by

hope and fear, with pleasure I saw there, that, with the help of my lead and iron bars used as anchors, the boat and raft had resisted the tide, though it had partially heaved them up. I got quickly on the raft, where I took a small loading, and returned to Falcon's Stream in time for breakfast. Judge of my surprise when arrived, that I neither saw nor heard a single creature of its inhabitants, though the sun had climbed high above the horizon.—Thinking it time for our fellow-labourers to be stirring, I gave a shout as loud as a war-whoop. My wife awoke first, and wondered to see the day so far advanced. Really, my dear, said she, I think it must be the magic charm of the good mattress you brought home yesterday that has lulled me into such a long sound sleep, and that appears to be still exerting its influence upon our boys. In fact, though they rubbed their eyes, they could scarcely keep them open: they yawned, stretched, turned round, and turned back again. Come come, up, my lads, exclaimed I, once again; the more we venture to parley with sloth, the longer she holds us in her chains; brave youths like you, ought to awake at the first call, and leap quick and gaily out of bed. Fritz, ashamed to have slept so long, was dressed first; Jack soon after him, and

Francis next ; the ever-slothful Ernest was the last.

Is it possible, dear boy, said I to him, that at your age you allow even little Francis to get the start of you ?

Oh ! father, answered he, it is so delightful to lose oneself again after having been awakened ! one feels sleep come on afresh so gently, ideas vanish so agreeably ! I should be glad to be awakened thus every morning, that I might have the pleasure of falling into a new slumber.

I answer, Ernest, that this is a refinement in slothfulness I never heard of till now ! It is my duty to tell you, and that gravely, if you acquire this habit, you will become an effeminate useless character. A man, though not like us, in a desert, is bound to provide for his existence, and avoid being a burthen to society ; he should do what is right with courage and promptness, without consulting convenience or pleasure. He who indulges himself in all that flatters his senses, will end by falling a victim to them. Nature produces, too, certain poisons, which are grateful to the palate ; yet the persons who unguardedly taste them, fail not to suffer the death they conceal.

After this short admonition, we all came down ; and prayers and breakfast being over,

we returned to the sea-side to complete the unloading of the raft, that it might be ready for sea on the ebbing of the tide. I was not long, with the additional assistance I had, in taking two cargoes to Falcon's Stream. At our last trip the tide was nearly up to our craft. I immediately sent back my wife and three children, and remained with Fritz waiting till we were quite afloat; when observing Jack hovering round us and dilatory in following his mother, I perceived his wish and assented to his embarking with us. Shortly after, the tide was high enough for us to row off. Instead of steering for Safety Bay to moor our vessels there securely, I was tempted by the fineness of the weather to go out again to the wreck, which it was with considerable difficulty we got up to, though aided by a very fresh sea breeze. On our getting along-side, it was too late to undertake much, and I was unwilling to cause my dear partner uneasiness by passing another night on-board; I therefore determined to bring away only what could be obtained with ease and speed: in this resolution we searched hastily through the ship for any trifling articles that might be readily removed. Jack was up and down, every where, at a loss what to select; and when I saw him again, he drew a wheel-barrow after him, shouting and rejoicing at having found

such a vehicle for the convenient carriage of our potatoes. But Fritz next disclosed still better news, which was that he had discovered behind the bulk-head amid-ship, a pinnace (*i. e.* a small craft, the forepart of which is square) taken to pieces, with all its appurtenances, and even two small guns for its defence. This intelligence so delighted me, that I quitted every thing else to run to the bulk-head, when I was convinced of the truth of the lad's assertion : but I instantly perceived, that to put it together and launch it into the sea, would be an Herculean task, which I relinquished for the present. I then collected some house utensils and whatever else I thought most useful ; such as a large copper boiler, some plates of iron, tobacco graters, two grinding-stones, a small barrel of gun-powder, and another full of flints, which I much valued. Jack's barrow was not forgotten ; two more were afterwards found and added, with straps belonging to them. All these articles were hurried into the boat, without our stopping to eat, or in any manner refresh ourselves, and we re-embarked with speed, to avoid meeting the land wind that invariably rises in the evening. As we were safely and happily drawing near to shore, we were struck with the appearance of an assemblage of small figures ranged in a long line on the strand, and that

seemed to be viewing us attentively : they were dressed in black, and all uniform, with white waistcoats and full cravats : the arms of these beings hung down carelessly ; now and then, however, they seemed to extend them tenderly, as if they wished to embrace or offer us a token of friendship.

I really think, said I to the boys, who were steadfastly gazing at so novel a spectacle, that we are in the country of the pygmies, and that, having discovered us, they wish to form a friendly alliance.

Jack. Oh, no ! father, they are certainly Lilliputians, though somewhat bigger than those of whom I read the description in Gulliver's Travels.

You, then, child, said I, consider those travels as true ; that there is an island of Lilliput, and inhabited by dwarfs ?

Jack. Gulliver says so. He met also with men of an immense stature, besides an island inhabited by horses

And yet I must tell you that the only reality in all his discoveries is the rich imagination of the author, whose taste and feeling led him to resort to allegory for the purpose of revealing grand truths. Do you know, Jack, what an allegory is ?

It somewhat resembles a parable, I presume.

Right, one is very similar to the other..

Jack. And the pygmies you mentioned, are any to be found?

No more than there are Lilliputians; they exist only in poetical fiction, or in the erroneous account of some ancient navigator, in which a group of monkeys has been falaciously described as diminutive men.

Fritz. Such probably are the mannikins that we see now stretching out their arms towards us. Ah, now I begin to perceive that they have beaks, and that their arms are short drooping wings;—what strange birds!

You are right, son, they are penguins or ruffs¹. They are of the *stupid* species; Ernest killed one soon after our arrival. They are excellent swimmers, but cannot fly; and so confused are they when on land, that they run in the silliest way into danger; catching such birds as these, is a fit sport for none but the indolent.

While we were talking I steered gently towards shore, to enjoy the uncommon sight the longer; but the very moment we got into shallow water, my giddy boy Jack leaped out of his cask up to his waist into it, and was quickly on land battering with his stick among the penguins before they were aware of his approach, so that half a dozen of them were immediately laid flat; they were not dead, but only stunned: the remainder, seeing they were so roughly ac-

costed, plunged into the sea, dived, and disappeared.

Fritz murmured audibly at his brother for having frightened them away before he could fire. I could not help laughing at this perpetual shooter of guns, who was so disposed to waste his powder on animals which were to be taken with the hand without resistance: I also taunted Jack a little for having jumped into the water at the risk of being drowned. While I was making these observations, the birds, that had been merely stunned, gradually recovered, rose upon their legs and began a tottering sort of march with a gravity which irresistibly excited our laughter. I did not allow Jack's game to escape; I took hold of them, tied their legs together with reeds, without hurting them, and laid them on the beach while we were landing our treasures. But as the sun declined, and we despaired of finishing before night set in, each of us filled a barrow in order to take home something. I requested that the tobacco-graters and iron plates might be in the first load; to these we added the penguins living and dead, and then set out. As we drew near Falcon's Stream I heard with pleasure the watchful dogs proclaim our approach with loud barking: they no sooner saw us than they ran up with lively demonstrations of joy, and

in the midst of their rough greetings completely overset poor Jack, who was wheeling along his barrow with difficulty and some ill-humour, and to this he gave vent by two or three lusty cuffs of his fist, which were divided between his friends Turk and Ponto, who so little thought of resenting them, that they sprang upon him as often as he took his barrow, and thus renewed the contest to the no small amusement of his brothers, who ran up to disengage him. My wife was highly pleased with the wheelbarrows and for the most part with their contents, but she had no partiality for the tobacco-graters.—In the name of Heaven, said she, what is the use of these graters? Are our four sons to become snuff-takers? Luckily for my fears, said she, the article is not to be obtained in our island.

No, dear wife, I replied; and pray do not be uneasy about them; these graters are not for the gratification of our noses; I am too happy in having myself abandoned the bad and filthy habit of snuff-taking, to permit my sons to use it. Come, children, said I, pointing to the penguins, look after the newcomers to the poultry-yard. I then directed them to fasten the birds one by one to a goose or a duck, as a means of taming and inuring them to the society of their companions. This essay, however, was tedious and

inconvenient to our feathered animals, who were but slowly reconciled to their singular companions. My wife now showed me a good store of potatoes which she had got in during our absence, and a quantity of the roots I had taken for manioc, and in which I was not mistaken : I much applauded her diligence and foresight, and gave Ernest and little Francis their share of approbation.

Papa, we have worked very hard indeed, said the latter ; what will you say when we have a fine crop of maize, melons, dates, and gourds ? Mamma has planted all these in the potatoe holes.

I must tell you, master Francis, exclaimed his mother, you are a little thoughtless babbler. Why did you tell my secret ? you have spoiled all the pleasure I promised myself in surprising your father with my new plantation.

Father. I am sorry for this, my dear ; but be assured I am not the less gratified for hearing of your kindness in this unexpected manner. But tell me, I beseech you, where did you procure all these seeds and grains, and how came you to think of so extraordinary a plan ?

Mother. I took the grain and seeds from the bottom of my enchanted bag, and your thirst after fresh booty and your endless

trips to the wreck are the sources of the resolution I formed to increase the number of your comforts at home, and thus render them the less necessary. I determined then during the fine season to fit up a kitchen-garden, and to sow as much of it with seed as I was able to dig and put in order; at the same time taking particular care to leave all the smallest-sized potatoes in the ground, that they might produce us a full and abundant crop.

Father. This was well thought, my love; but we must not despise the trips to the vessel neither; this very day we unexpectedly discovered in her a new and handsome little pinnace, which at some time or other may be of the greatest service to us.

Mother. I cannot say that this discovery gives me very much pleasure; I have no desire to trust myself again on the sea; but should it at any time be absolutely necessary, I must confess I should prefer a well made solid vessel to our miserable raft composed of tubs.

Father. Well, this you shall possess, if you will consent to my returning once more to the wreck; in the mean while, let us have some supper, and then we will retire to rest; and if my little workmen should be industriously inclined to-morrow, I shall reward them with what to children is always a source

of pleasure—the novelty of a new trade to be learnt. This did not fail to excite the curiosity of all; but I kept my word, and made them wait till the following day for the explanation I had to give.

CHAPTER XX.

The bake-house.

I WAKED the boys very early, reminding them that I had promised to teach them a new trade. What is it? What is it? exclaimed they all at once, springing suddenly out of bed and hurrying on their clothes.

Father.—It is the art of baking, my boys, which at present I am no more acquainted with than yourselves ; but we will learn it together, and I am much mistaken if we shall not be able to produce an excellent batch of bread, which will be the greater luxury, from our having been altogether deprived of it during our residence in this island. Hand me those iron plates that we brought yesterday from the vessel, and the tobacco-graters also.

Mother.—I really cannot understand what tobacco-graters and iron plates can have to do with making bread ; a good oven wou'd afford me much better hopes, and this, unfortunately, we do not possess.

Father.—These very iron plates, the same you looked so disdainfully upon no longer since than yesterday, will serve the purpose.

of the things you are now wishing to have. —I cannot, it is true, promise, in this early attempt, to produce you light and handsome-looking bread ; but I can answer that you shall have some excellent-tasted cakes, though they should be a little flat and heavy ;—we will immediately make our experiment. Ernest, bring hither the roots found underground : but first, my dear, I must request you to make me a small bag of a piece of the strongest wrapper linen.

My wife set instantly to work to oblige me ; but having no great confidence in my talents for making cakes, she first filled with potatoes the large copper boiler we had brought from the ship, and put it on the fire, that we might not find ourselves without something to eat at the time of dinner : in the meanwhile I spread a large piece of coarse linen on the ground, and assembled my young ones round me to begin our undertaking ; I gave each of the boys a grater, and showed him at the same time how to rest it on the linen, and then to grate the roots of manioc ; so that in a short time each had produced a considerable heap of a substance somewhat resembling pollard. The occupation, as is always the case with novelties, proved infinitely amusing to them all, and they looked no further into the matter ; one showed the other his heap, saying in a ban-

tering tone : Will you eat a bit of nice cake made of grated radishes ?

Father.—Make as merry as you please, young gentlemen, on the subject of this excellent production of nature, which ere long you will acknowledge to have yielded you a most palatable kind of food ; a food which is known to be the principal sustenance of whole nations of the continent of America, and which the Europeans who inhabit those countries even prefer to our wheaten bread. I must tell you, there are many kinds of manioc ; one of these shoots rapidly, and its roots become mature in a short time ; a second sort is of more tardy growth ; and there is another, the roots of which require the space of two years to be fit for use. The first two kinds have pernicious or unwholesome qualities when eaten raw, but the third may be eaten without fear : for all this, the two first are generally preferred, as being more productive, and requiring a shorter time for being fit for use.

Jack.—One would think only madmen could prefer those that are pernicious : we cannot to be sure but be overwhelmed with gratitude for some cake that is to kill us (and the young rogue threw his grater from him as he spoke) ! who shall tell us that our fine roots here are not of the same pernicious kind ?

Father.—At all events we shall not eat them.

raw; as nearly as I recollect, the tardy kind, like these we have procured, grow in the form of a bush; while the other two are creeping plants. However, to be quite sure, the first thing we will do, shall be to press the pollard.

Ernest.—For what end, father, shall we press it?

Father.—Because, even in the pernicious kind it is only the sap which is hurtful; the more substantial part being when dried extremely wholesome and even nourishing. But that we may act with the greatest possible prudence, we will give some of our cakes to the fowls and to the monkey, before we venture to eat of them ourselves; if they do them no harm, we may then proceed to feast on them with safety.

Jack.—Thank you, father; but I have no fancy to let my monkey be poisoned.

Father.—You may be perfectly easy, Jack, for the preservative instinct of your monkey is such, that he would not touch it if it were poisonous; animals are in this respect better treated than man, who is called upon to use his reason in supplying the deficiency: at all events, however, we will give him so little that no harm can possibly ensue.

Upon this Jack picked up his grater, and with the others began to grate the roots with new alertness: dread of the poison had for

an instant palsied every arm; but a very short time was now sufficient for producing a considerable quantity of ground manioc. By this time my wife had completed the bag. I had it well filled with what we called our pollard, and she closed it effectually by sewing up the end. I was now to contrive a kind of press: I cut a long, straight, well-formed branch, of considerable strength, from a neighbouring tree, and stripped it of the bark; I then placed a plank across the table we had fixed between the arched roots of our tree, and which was exactly the right height for my purpose, and on this I laid the bag; I put other planks again upon the bag, and then covered all with the large branch, the thickest extremity of which I inserted under an arch, while to the other, which projected beyond the planks, I suspended all sorts of heavy substances, such as lead, our largest hammers and bars of iron, which, acting with great force as a press on the bag of manioc, caused the sap it contained to issue in streams, which flowed plentifully on the ground.

Fritz.—This machine of yours, father, though simple, is as effectual as can be desired.

Father.—Certainly. It is the simplest lever that the art of mechanism can furnish, and may be made extremely useful.

Ernest.—I thought that levers were never used but for raising heavy masses, such as blocks of stone, and things of that degree of weight; I had no notion that they were ever used for pressing.

Father.—But, my dear boy, you see that the point at which the lever rests on the planks, must always be the point of rest or compression; the point at which its extremity touches the roots of the tree would no doubt be that of the raising power, if the root was not too strong to yield to the point of the lever; but then the resistance at the point of compression or rest is still stronger, and presses effectually, as you see, the contents of the bag. The Negroes, however, have another manner of proceeding; but it would have been much too tedious in the process for us to imitate. They make tresses of the bark of a tree, and with it form a kind of basket of tolerable size; they fill it with manioc, and press it so tightly that the baskets become shorter, and increase in breadth; they then hang the baskets to the strongest branches of trees, and fasten large stones to them, which draw the baskets again lengthways; by which action upon the manioc, the sap runs out at the openings left by the tresses.

Mother.—Can one make no use of this sap?

Father.—Certainly, we may: the same

Negroes use it as food, after mixing with it a considerable quantity of pepper; and, when they can procure them, some sea crabs. The Europeans, on the other hand, leave it to settle in vessels till it has formed a sediment; they then pour off the liquid part, wash the sediment with fresh water, and place it to dry in the sun: in this manner they obtain from it an excellent sort of starch, which is used for clearing linen. I must tell you that the potatoe also contains the same sort of substance, which may be put to the same use: for the rest, the latter is less nourishing than the manioc.

Mother.—But pray tell me, are we to prepare the whole of this manioc at once? If so, we have at least a whole day's work, and a great part must be spoiled at last.

Father.—Not so, my dear; when the pollard is perfectly dry, it may be placed in casks, and being shut closely down, it will keep for years; but you will see that the whole of this large heap will be so reduced in quantity by the operation we are going to apply of baking, that there will be no cause for your apprehension.

Fritz.—Father, it no longer runs a single drop; may we not now set about making the dough?

Father.—I have no objection; but it would be more prudent to make only a small

cake, at first, by way of experiment, which as I said before we will give to the monkey and the fowls, and wait to see the effect, instead of exhausting our whole store at once.

We now opened the bag, and took out a small quantity of the pollard, which already was sufficiently dry; we stirred the rest about with a stick, and then replaced it under the press. The next thing was to fix one of our iron plates, which was of a round form, and rather convex, so as to rest upon two blocks of stone at a distance from each other; under this we lighted a large fire, and when the iron plate was completely heated, we placed a portion of the dough upon it with a wooden spade. As soon as the cake began to be brown underneath, it was turned, that the other side might be baked also.

Ernest.—O how nicely it smells! what a pity that we may not eat some of it immediately!

Jack.—And why not? I would eat some without the least fear; and would not you, Francis?

Father.—Hah, hah! What is then become of our terrible fear of being poisoned, which made you even throw your grater from you? Ah, I see how it is; the passion of gluttony is stronger than your fear.—However, I certainly believe that in this case it might be gratified without doing you an

injury ; nevertheless it is better perhaps to wait till the evening, and not run a greater risk than the loss of one or two of our fowls and of the monkey ; and we may say this trial of the cake will be the first service he has rendered us.

As soon as the cake was cold, we broke some of it into crumbs, and gave it to two of the fowls, and a larger piece to the monkey, who nibbled it with a perfect relish, making all the time a thousand grimaces to testify his content, while the boys stood by envying the preference he enjoyed.

Fritz.—Now tell me, father, how the savages manage to grate their manioc, for surely they have not, like us, an instrument fitted for the operation :—and tell me also, if they call their composition by the name of cake or bread, as we do ?

Father.—The savages having no such article as bread in their bill of fare, have consequently no word in their language to express it. At the Antilles, the bread from the manioc is called *cassave* ; the savages make a kind of grater with sharp stones, or shells ; or when they can get nails, on which they set a high value, they drive them into the end of a plank, and rub the manioc upon it. But now, I pray you, good wife, give us quickly some dinner, and we will afterwards resume the baking trade, provided our tasters

show no signs of the colic or swimming in the head.

Fritz.—Are these, then, the only effects of poison, father?

Father.—At least they are the most ordinary ones: there are poisons which paralyse and induce a heavy sleep; such are opium, if taken in too large a quantity; hemlock, &c. &c. Others are sharp and corrosive, attacking the stomach and intestines: of this class are arsenic, sublimate, and the pernicious sorts of mushrooms. If, when either of these has been swallowed, there be not immediate assistance procured, the human machine stops, becomes disorganized, and the patient dies.—I will take this occasion, my dear children, to caution you against a kind of fruit extremely dangerous in its nature, and the more so from the remarkable attraction of its external appearance. This fruit is frequently found in America on the banks of rivers or in marshes, and you may perhaps meet with it in this island. Its aspect is agreeable to the eye, resembling a handsome kind of yellow apple with red spots. It is, however, one of the strongest poisons in the world: it is even said to be dangerous to sleep under the shade of the tree which produces it. Be very careful, therefore, should you happen to meet with it: it is known by the name of *mancenilla*. Indeed I cannot too

seriously exhort you not to venture on eating any thing you may find, however alluring in appearance, till you have first consulted me. Promise me this, children, one and all of you.

Jack.—I promise you heartily, father; and still further, I will keep my word more faithfully than Adam did towards God, who had forbidden him to eat of a certain apple.

Father.—You will do well in this; but do not so presumptuously and so readily blame that in another which under the same circumstances you would have done yourself; I would lay a wager that you would be the first to be led away by any worthless knave who should come and tell you that I had been laughing at you all the while, that the mancenilla is the finest apple in the world, and that by eating it you would be rendered as strong as a lion; that ready appetite of yours, and that little vanity we now and then discover in you, would make you, I fear, forget my advice, and greedily devour the apple.—But this is enough on the subject; instead of thinking more of poisons, let us resort with confidence to our plentiful dish of boiled potatoes; perhaps, dear wife, you have some little relish to add to them to day: —what, I pray you, may there be in that boiling vessel yonder?

Mother.—It is the penguin that Jack killed and brought home.

To say the truth, we did not take a fancy to the dish, the bird being of a strong and fishy flavour. Jack, however, was of a different opinion, and he was left at full liberty to regale himself to his appetite's content.

The first thing we did after dinner was to visit our fowls. Those among them which had eaten the manioc, were in excellent condition, and no less so the monkey, who gave us sufficient proofs of life and health in the multitude of gambols and grimaces he exhibited. Now then to the bakehouse, young ones, said I—to the bakehouse as fast as you can scamper. The grated manioc was soon emptied out of the bag, a large fire was quickly lighted, and when sufficiently fervent, I placed the boys where a flat surface had been prepared for them, and gave to each a plate of iron and the quantity of a cocoa nut full for them to make a cake apiece, and they were to try who could succeed the best. They were ranged in a half circle round the place, where I stood myself, that they might the better be enabled to observe how I proceeded, and adopt the same method for themselves. The result was not discouraging for a first experiment, though it must be confessed we were now and then so unlucky as to burn a cake; but there was not a greater number of these than served to feed the pigeons and the fowls, which hover-

ed round us to claim their share of the treat. My little rogues could not resist the pleasure of frequently tasting their cake, a little bit at a time, as they went on. At length the undertaking was complete ; the cakes were put in a dish and served in company with a handsome share of milk, to each person ; and with this addition, they furnished us an excellent repast : what remained we distributed among our animals and fowls. I observed with pleasure that the penguins which I had preserved alive, accommodated themselves perfectly to this kind of food, and that generally, they began to lose their former timid behaviour ; I therefore indulged my inclination to compassionate their captive state, and ventured to disengage them from their comrades : this indulgence procured me the pleasure of seeing them seemingly in a state of newly acquired content.

The rest of the day was employed by the boys in making several turns with their wheelbarrows, and by myself in different arrangements in which the ass and our raft had a principal share, both being employed in drawing to Tent-House the remaining articles we had brought from the ship. When all this was done we retired to rest, having first made another meal on our cakes, and concluded all with pious thanks to God for the blessings his goodness thought fit to bestow upon us.

CHAPTER XXI.

The pinnace and the cracker.

FROM the time of discovering the pinnace, my desire of returning to the vessel grew every moment more and more irresistible: but one thing I saw was absolutely necessary, which was to collect all my hands and go provided with sufficient strength to enable me to get her out from the situation where we had found her the day before. I therefore thought of taking with me the three boys: I even wished that my wife should accompany us; but she had been seized with such an horror of the perfidious element as she called it, the sea, that she assured me the very attempt would make her ill, and thus occasion her to be an additional trouble rather than of use. I had some difficulty to prevail upon her to let so many as three of the children go: she made me promise to return the same evening, and on no account to pass another night on-board the wreck: and to this I was, though with regret, obliged to consent.

After breakfast then, we prepared for setting out, but not without some sighing and

mournful looks from my amiable partner. The boys, on the contrary, were gay and on the alert, in the expectation of the pleasure that awaited them; particularly Ernest, who had not yet made a single voyage with us to the vessel. We took with us an ample provision of boiled potatoes and cassave; and in addition, arms and weapons of every kind. We embarked and reached Safety Bay without the occurrence of any remarkable event: here we thought it prudent to put on our cork jackets; we then scattered some food for the geese and ducks which had taken up their abode there, and soon after stepped gaily into our tub-raft, at the same time fastening the new boat by a rope to her stern, so that she could be drawn along. We put out for the current, though not without considerable fear of finding that the wreck had entirely disappeared. We soon, however, perceived that she still remained firm between the rocks. Having got on-board, our first care was to load our craft with different stores, that we might not return without some acquisition of comfort for our establishment; and then all on the wings of curiosity and ardour we repaired to that part of the vessel called the bulk-head, which contained the enviable prize, the pinnace. On further observation, it appeared to me that the plan we had formed was subject to at least two alarming and perhaps insur-

mountable difficulties: the one was the situation of the pinnace in the ship; and the other was the size and weight it would necessarily acquire when put together. The inclosure in which she lay in pieces was far back in the interior of the ship, and close upon the side which was in the water, immediately under the officers' cabin. Several inner timbers of prodigious bulk and weight separated this inclosure from the breach at which only we had been able to get on-board, and in this part of the deck there was not sufficient space for us to work at putting the pinnace together, or to give her room should we succeed in completing our business. The breach also was too narrow and too irregular to admit of her being launched from this place, as we had done with our tub-raft. In short, the separate pieces of the pinnace were too heavy for the possibility of our removing them even with the assistance of our united strength. What therefore was to be done? and how could we meet so formidable a difficulty? I stood on the spot absorbed in deep reflection, while the boys were running from place to place, conveying every thing portable they could find, on-board the raft.

The cabinet which contained the pinnace was lighted by several small fissures in the timbers, which after standing in the place a few minutes to accustom the eye, enabled

one to see sufficiently to distinguish objects. I discovered with pleasure that all the pieces of which she was composed were so accurately arranged and numbered, that without too much presumption, I might flatter myself with the hope of being able effectually to collect and put them together, if I could be allowed the necessary time, and could procure a convenient place. I therefore, in spite of every disadvantage, decided on the undertaking; and we immediately set about it. We proceeded, it must be confessed, at first so slowly as to produce discouragement, if the desire of possessing so admirable a little vessel, quite new, perfectly safe, easy to conduct, and which might at some future day be the means of our deliverance, had not at every inoment inspired us with new strength and ardour.

Evening, however, was fast approaching, and we had made but small progress; we were obliged to think of our promise to my wife; and though with reluctance, we left our occupation and re-embarked. On reaching Safety Bay, we had the satisfaction of finding there our kind steward and little Francis; they had been, during the day, employed in some necessary arrangements for our living at Tent-House as long as we should have occasion to continue the excursions to the vessel: this she did to shorten the length of the

voyage, and that we might be always in sight of each other. This new proof of her kind attention affected me in a lively manner, and I could not sufficiently express the gratitude which I felt, particularly as I knew the dislike she had conceived to living in this spot. I presented her with the valuable cargo we brought, which I knew would give her pleasure, and regretted that I had no better recompense to offer for the voluntary sacrifice she had made to my accommodation. I made the best display I could of two casks of salted butter, three of flour, some small bags of millet-seed and of rice, and a multitude of other articles of utility and comfort for our establishment. My wife rewarded me by the expression of her perfect satisfaction, and the whole was removed to our storehouse at the rocks.

We passed an entire week in this arduous undertaking of the pinnace. I embarked regularly every morning with my three sons, and returned every evening, and never without some small addition to our stores. We were now so accustomed to this manner of proceeding, that my wife bade us good bye without concern, and we, on our parts, left Tent-House without anxiety; she even had the courage to go several times, with no companion but her little Francis, to Falcon's Stream, to feed and take care of the poultry,

and to bring back potatoes for our use. As night successively returned, we had a thousand interesting things to tell each other, and the pleasure of being together was much increased by these short separations: we even enjoyed with a better appetite the excellent supper our kind hostess at all times took care to prepare for us.

At length the pinnace was completed, and in a condition to be launched: the question now was, how to manage this remaining difficulty. She was an elegant little vessel, perfect in every part: she had a small neat deck; and her mast and sails were no less exact and perfect than those of a little brig. It was probable she would sail well, from the lightness of her construction, and in consequence, drawing but little water. We had pitched and towed all the seams, that nothing might be wanting for her complete appearance: we had even taken the superfluous pains of further embellishing by mounting her with two small cannon of about a pound weight; and, in imitation of larger vessels, had fastened them to the deck with chains. But in spite of the delight we felt in contemplating a commodious little vessel, formed for usefulness in all its parts, and the work, as it were, of our own industry, yet the great difficulty still remained: the said commodious,

charming little vessel still stood fast, inclosed within four walls ; nor could I conceive of a means of getting her out. To support the idea of so much time and labour bestowed for no end or advantage, was absolutely impossible ; to effect a passage through the outer side of the vessel, by means of our united industry in the use of all the utensils we had secured, seemed to present a prospect of exertions beyond the reach of man, even if not attended with dangers the most threatening and alarming. We now examined if it might be practicable to cut away all intervening timbers, to which, from the nature of the breach, we had easier access ; but should we even succeed in this attempt, the upper timbers being, in consequence of the inclined position of the ship, on a level with the water, our labour would be unavailing : besides, we had neither strength nor time for such a proceeding ; from one moment to another, a storm might arise and engulf the ship, timber, pinnace, ourselves, and all. Despairing, then, of being able to find a means consistent with the sober rules of art, my impatient fancy inspired the thought of a project, which, if subjected to the experiment, must necessarily be attended with hazards and dangers of a tremendous nature.

I had found on-board, a strong iron mortar, such as is used in kitchens. I took a thick oak plank, and nailed to a certain part of it some large iron hooks : with a knife I cut a groove along the middle of the plank. I sent the boys to fetch some match-wood from the hold, and I cut a piece sufficiently long to continue burning at least two hours. I placed this train in the groove of my plank : I filled the mortar with gun-powder, and then laid the plank, thus furnished, upon it, having previously pitched the mortar all round ; and, lastly, I made the whole fast to the spot with strong chains crossed by means of the hooks in every direction. Thus I accomplished a sort of cracker, from which I expected to effect a happy conclusion. I hung this infernally-contrived machine against the side of the bulk-head next the sea, having taken previous care to choose a spot in which its action could not affect the pinnace. When the whole was arranged, I set fire to the match, the end of which projected far enough beyond the plank to allow us sufficient time to escape. I now hurried on-board the raft, into which I had previously sent the boys before applying a light to the match ; and who, though they had assisted in forming the cracker, had no suspicion of the use for which it was in-

tended, and believing all the while it concealed some subject of amusement for their next trip to the vessel. I confess I had purposely avoided giving them the true explanation, from the fear of the entire failure of my project, or that the vessel, pinnace, and all that it contained, might in consequence be blown up in a moment. I had naturally, therefore, some reluctance to announce myself before the time, as the author of so many disasters.

On our arrival at Tent-House, I immediately put the raft in a certain order, that she might be in readiness to return speedily to the wreck, when the noise produced by the cracker should have informed me that my scheme had taken effect. We set busily to work in emptying her; and during the occupation, our ears were assailed with the noise of an explosion of such violence, that my wife and the boys, who were ignorant of the cause, were so dreadfully alarmed as instantly to abandon their employment. What can it be?—what is the matter?—what can have happened? cried all at once. It must be cannon. It is perhaps the captain and the ship's company who have found their way hither! Or can it be some vessel in distress? Can we go to its relief?

Mother.—The sound appeared to come in the direction of the wreck; perhaps she

has blown up. Were you careful of not leaving any light which could communicate with gun-powder?—From the bottom of her heart she made this last suggestion, for she desired nothing more earnestly than that the vessel should be annihilated, and thus an end be put to our repeated visits.

Father.—If this is the case, said I, we had better return immediately, and convince ourselves of the fact.—Who will be of the party?

I, I, I, cried the boys; and the three young rogues lost not a moment in jumping into their tubs, whither I soon followed them, after having whispered a few words to my wife, somewhat tending to explain, but still more to tranquillise her mind during the trip we had now to engage in.

We rowed out of the bay with more rapidity than on any former occasion; curiosity gave strength to our arms. When the vessel was in sight, I observed with pleasure that no change had taken place in the part of her which faced Tent-House; and that no sign of smoke appeared: we advanced, therefore, in excellent spirits; but instead of rowing, as usual, straight to the breach, we proceeded round to the side, on the inside of which we had placed the cracker. The horrible scene of devastation we had caused now broke upon our sight. The greater part of the

ship's side was shivered to pieces ; innumerable splinters covered the surface of the water ; the whole exhibited a scene of terrible destruction, in the midst of which presented itself our elegant pinnace, entirely free from injury ! I could not refrain from the liveliest exclamations of joy, which excited the surprise of the boys, who had felt the disposition such a spectacle naturally inspired, of being dejected at the sight of so melancholy an event. They fixed their eyes upon me with the utmost astonishment.—Now then she is ours, cried I—the elegant little pinnace is ours ! for nothing is now more easy than to launch her. Come, boys, jump upon her deck, and let us see how quickly we can get her down upon the water.

Fritz.—Ah ! now I understand you, father, you have yourself blown up the side of the ship with that machine you contrived in our last visit, that we might be able to get out the pinnace ; but how does it happen that so much of the ship is blown away ?

Father.—I will explain all this to you when I have convinced myself that the pinnace is not injured, and that there is no danger of any of the fire remaining on-board : let us well examine. We entered by the new breach, and had soon reason to be satisfied that the pinnace had wholly escaped

from injury, and that the fire was entirely extinguished. The mortar, however, and pieces of the chain, had been driven forcibly into the opposite side of the inclosure. Having now every reason to be satisfied and tranquil, I explained to the boys the nature of a cracker, the manner of its operation, and the important service for which I was indebted to the old mortar.

I now attentively examined the breach we had thus effected, and next the pinnace. I perceived that it would be easy, with the help of the crow and the lever, to lower her into the water. In putting her together, I had used the precaution of placing the keel on rollers, that we might not experience the same difficulty as we had formerly done in launching our tub-raft. Before letting her go, however, I fastened the end of a long thick rope to her head, and the other end to the most solid part of the wreck, for fear of her being carried out too far. We put our whole ingenuity and strength to this undertaking, and soon enjoyed the pleasure of seeing our pretty pinnace descend gracefully into the sea; the rope keeping her sufficiently near, and enabling us to draw her close to the spot where I was loading the tub-boat, and where for that purpose I had lodged a pulley on a projecting beam, from which I was enabled

also to advance with the completing of the necessary masts and sails for our new barge. I endeavoured to recollect minutely all the information I had ever possessed on the art of equipping a vessel ; and our pinnace was shortly in a condition to set sail.

On this occasion a spirit of military affairs was awakened in the minds of my young flock, which was never after extinguished. We were masters of a vessel mounted with two cannon, and furnished amply with guns and pistols ! This was at once to be invincible, and in a condition for resisting and destroying the largest fleet the savages could bring upon us ! In the height of exultation it was even almost wished they might assail us ! For my own part, I answered their young enthusiasm with pious prayers that we might ever escape such a calamity as the being compelled to use our fire-arms. Night surprised us before we had finished our work, and we accordingly prepared for our return to Tent-House, after drawing the pinnace close under the vessel's side. We arrived in safety, and took great care, as had been previously agreed on, not to mention our new and invaluable booty to the good mother, till we could surprise her with the sight of it in a state of entire completeness. In answer, therefore, to her inquiries as to the noise she heard, we told her that a barrel

of gun-powder had taken fire, and had shivered to pieces a small part of the ship. We relied that no suspicion of the secret would occur to her mind, should she even have the fancy of looking at the vessel through the glass, as she sometimes did; for the pinnace lay so as to be concealed by the immense bulk of the ship's body.

Two whole days more were spent in completely equipping and loading the beautiful little barge we had now secured. When she was ready for sailing, I found it impossible to resist the earnest importunity of the boys, who, as a recompense for the industry and discretion they had employed, claimed my permission to salute their mother, on their approach to Tent-House, with two discharges of cannon. These accordingly were loaded, and the two youngest placed themselves, with a lighted match in hand, close to the touch-holes, to be in readiness. Fritz stood at the mast to manage the ropes and cables, while I took my station at the rudder. These matters being adjusted, we put off with sensations of lively joy, which was demonstrated by loud huzzas and suitable gesticulation. The wind was favourable; and so brisk, that we glided with the rapidity of a bird along the mirror of the waters: and while my young ones were transported with pleasure by the velocity of the motion, I



H. C. Corbould. Del.

J. Springerforth. Sculpt.

Fritz at the same time discharged his pistols,
& all joined instantly in three loud huzzas.

p. 69.

could not myself refrain from shuddering at the thought of some possible disaster.

Our old friend the tub-raft had been deeply loaded and fastened to the pinnace, and it now followed as an accompanying boat to a superior vessel. We took down our large sail as soon as we found ourselves at the entrance of the Bay of Safety, to have the greater command in directing the barge ; and soon, the smaller ones were lowered one by one, that we might the more securely avoid being thrown with violence upon the rocks so prevalent along the coast : thus, proceeding at a slower rate, we had greater facilities for managing the important affair of the discharge of the cannon. Arrived within a certain distance—“*Fire*”—cried commander Fritz. The rocks behind Tent-House returned the sound.—“*Fire*”—said Fritz again.—Ernest and Jack obeyed, and the echoes again majestically replied. Fritz at the same moment had discharged his two pistols, and all joined instantly in three loud huzzas.

Welcome ! welcome ! dear ones, was the answer from the anxious mother, almost breathless with astonishment and joy ! Welcome, cried also little Francis with his feeble voice, as he stood clinging to her side, and not well knowing whether he was to be sad or merry ! We now tried to push to shore

with our oars in a particular direction, that we might have the protection of a projecting mass of rocks, and my wife and little Francis hastened to the spot to receive us: Ah, dear deceitful ones! cried she, throwing herself upon my neck and heartily embracing me, what a fright have you, and your cannon, and your little ship thrown me into! I saw it advancing rapidly towards us, and was unable to conceive from whence it could come, or what it might have on board: I stole with Francis behind the rocks, and when I heard the firing, I was near sinking to the ground with terror; if I had not the moment after heard your voices, God knows where we should have run to—but come, the cruel moment is now over, and thanks to Heaven I have you once again in safety! But tell me where you got so un hoped-for a prize as this neat charming little vessel? In good truth it would really almost tempt me to venture once more on a sea voyage, especially if she would promise to convey us back to our dear country! I foresee of what use she will be to us, and for her sake I think that I must try to forgive the many sins of absence you have committed against me.

Fritz now invited his mother to get on-board, and gave her his assistance. When they had all stepped upon the deck, they entreated for permission to salute, by again

discharging the cannon, and at the same moment to confer on the pinnace the name of their mother—*The Elizabeth*.

My wife was particularly gratified by these our late adventures ; she applauded our skill and perseverance : but do not, said she, imagine that I bestow so much commendation without the hope of some return in kind : on the contrary, it is now my turn to claim from you, for myself and little Francis, the same sort of agreeable recompense ; for we have not, I assure you, remained idle while the rest were so actively employed for the common benefit.—No, not so ; little Francis and his mother found means to be doing something also, though not at this moment prepared to furnish such unquestionable proofs as you, by your salutations of cannon, &c. : but wait a little, good friends, and our proofs shall hereafter be apparent in some dishes of excellent vegetables which we shall be able to regale you with.—It depends, to say the truth, only on yourselves, dear ones, to go with me and see what we have done.

We did not hesitate to comply, and jumped briskly out of the pinnace for the purpose. Taking her little coadjutor Francis by the hand, she led the way, and we followed in the gayest mood imaginable. She conducted us up an ascent of one of our rocks, and stopping at the spot where the cascade is

formed from Jackal's river, she displayed to our astonished eyes a handsome and commodious kitchen garden, laid out properly in beds and walks, and, as she told us, every where sowed with the seed of useful plants.

This, said she, is the pretty exploit we have been engaged in, if you will kindly think so of it. In this spot the earth is so light, being principally composed of decayed leaves, that Francis and I had no difficulty in working it, and then dividing it into different compartments ; one for potatoes, one for manioc, and other smaller shares for lettuces of various kinds, not forgetting to leave a due proportion to receive some plants of the sugar-cane. You, dear husband, and Fritz, will easily find means to conduct sufficient water hither from the cascade, by means of pipes of bamboo, to keep the whole in health and vigour ; and we shall have a double source of pleasure from the general prosperity, for both the eyes and the palate will be gratified. But you have not yet seen all : there, on the slope of the rock, I have transplanted some plants of the ananas. Between these, I have sowed some melon seeds, which cannot fail to succeed, thus securely sheltered and in so warm a soil : here is a plot allotted to pease and beans, and this other for all sorts of cabbage. Round each bed or plot I have sowed seeds of maize, on account of

its tall and bushy form, to serve as a border, which at the same time will protect my young plants from the scorching heat of the sun.

I stood transported in the midst of so perfect an exhibition of the kind zeal and persevering industry of this most amiable of women! I could only exclaim, that I should never have believed in the possibility of such a labour in so short a time, and particularly with so much privacy as to leave me wholly unsuspecting of the existence of such a project.

Mother.—To confess the truth, I did not myself at first expect to succeed, for which reason I resolved to say nothing of the matter to any one, that I might not be put to the blush for my presumption. But as I found my little calculations answer better than I expected, I was encouraged, and the hope of surprising you so agreeably, gave me new strength and activity. I, on my part, however, had my suspicions that your daily visits to the wreck were connected with some great mystery, which at a certain time you would be prepared to unfold—So, mystery for mystery, thought I; and thus, my love, it has turned out. Though acting in different directions, one only object has been our mutual aim—the substantial good of our beloved companions of the desert!

After a few jocose remarks with which we closed this conversation, we moved towards Tent-House. This was one of our happiest days, for we were all satisfied with ourselves and with each other ; we had conferred and received benefits, and I led my children to observe the goodness of Providence, who renders even labour a source of enjoyment, and makes our own happiness result from that of the objects of our affection, and our pride to arise from the commendations of which those objects may be deserving.

I had almost forgot though, said my wife, after a short pause, one little reproach I had to make you : your trips to the vessel have made you neglect the bundle of valuable fruit saplings we laid together in mould at Falcon's Stream ; I fear they by this time must be dying for want of being planted, though I took care to water and cover them with branches. Let us go, my love, and see about them.

I readily consented to so reasonable a proposal. I should have been no less grieved than my wife, to see this charming acquisition perish for want of care. We had reason on many accounts to return quickly to Falcon's Stream, where different matters required our presence. We had now in possession the greater part of the cargo of the

vessel ; but almost the whole of these treasures were at present in the open air, and liable to injury from both sun and rain.

My wife prepared with alertness for our walk ; and the rather from the aversion she had ever entertained, on account of the intense heat, for Tent-House. We hastened to unload the boat, and to place the cargo safely under shelter along with our other stores.

The pinnace was anchored on the shore, and fastened with a rope, by her head, to a stake. When all our stores were thus disposed of, we began our journey to Falcon's Stream, but not empty-handed ; we took with us every thing that seemed to be absolutely wanted for comfort ; and when brought together, it was really so much, that both ourselves and our beasts of burthen had no easy task to perform.

CHAPTER XXII.

Gymnastic exercises ;—various discoveries ; singular animals, &c.

NEITHER our voyages to the wreck, nor the laboriousness of our occupations at Tent-House had made us forget the regular observance of our duties on the sabbath-day, which now again occurred the day after our return to Falcon's Stream; and we accordingly distinguished it by consecrating the forenoon to reading the church prayers, some chapters in the Bible, singing psalms, and lastly, the recital of a new parable I had invented, and which I had named the *Arabian Travellers*. I reminded my children in it, by the help of imagery and fictitious names, of all the aid and all the benefits bestowed upon us by an all-beneficent Providence, from the moment of our being cast upon our present abode ;—that it was his compassion for our situation which had endued us with sagacity and perseverance in the discovery of so many things necessary for our existence ; and one treasure, valuable above all the rest—a talisman, bestowed by the good genius who watched over poor

defenceless wanderers. This talisman was such as to inspire them on every occasion with the knowledge of what was best for their happiness, and that by listening to these inspirations, they might be sure of always keeping in the right path, and finding every want supplied. I need not explain that by the good genius I alluded to the ever-watchful care of the exemplary wife and mother; and by the talisman, the sacred volume she had so miraculously preserved and concealed in her enchanted bag. I was well understood by my hearers; and as I finished my discourse, the children all ran spontaneously at once to embrace their mother, addressing her by the term *Good Genius*, and thanking her for having been the means of securing the Bible, to which we might all resort for consolation and instruction.

After dinner I again addressed my family with a short moral discourse, and then allowed them to use whatever kind of recreation they pleased; one feature of my system being, not to tire them with the subjects I wished them to feel an attachment for. I recommended to them, for the sake of uniting usefulness with their amusement, to resume the exercise we began upon the first Sunday of our abode in these regions, the shooting of arrows; for I had an extreme solicitude about their preserving and increasing

their bodily strength and agility, which in a situation like ours, might prove of such critical importance. Nothing tends more to the extinction of personal courage in a human being, than the consciousness of wanting that strength of limb, or that address, which may be necessary to aid us in defending ourselves, or in escaping from dangers. On this occasion, I added the exercises of running, jumping, getting up trees, both by means of climbing by the trunk, or by a suspended rope, as sailors are obliged to do to get to the mast-head. We began at first by making knots in the rope at a foot distance from each other ; then we reduced the number of knots, and before we left off, we contrived to succeed without any. I next taught them an exercise of a different nature, with which they were unacquainted, and which was to be effected by means of two balls made of lead, fastened one to each end of a string about a fathom in length. While I was preparing this machinery, all eyes were fixed upon me.—What can it be intended for ? cried one : How can we use it ? asked another : Will it soon be ready ? continued a third,

Father.—Have a little patience, boys, if it be not quite impossible for you to practise this precious virtue ; for though the thing I am endeavouring to make for you may turn

out extremely useful, yet this said virtue of patience is much more likely to be a constant, steady, and efficient friend.—But now for the object of your curiosity. It is nothing less than an imitation of the arms used by a valiant nation remarkable for their skill in the chase, and whom you all must have heard of: I mean the Patagonians, inhabitants of the most southern point of America; but instead of balls, which they are not able to procure, they tie two heavy stones, one at each end of a cord, but considerably longer than the one I am working with: every Patagonian is armed with this simple instrument, which they use with singular dexterity. If they desire to kill or wound an enemy or an animal, they fling one of the ends of this cord at him, and begin instantly to draw it back by the other, which they keep carefully in their hand, to be ready for another throw if necessary: but if they wish to take an animal alive, and without hurting it, they possess the singular art of throwing it in such a way as to make it run several times round the neck of the prey, occasioning a perplexing tightness; they then throw the second stone, and with so certain an aim, that they scarcely ever miss their object: the operation of the second is, the so twisting itself about the animal as to impede his progress, even though he were at a full gal-

lop. The stones continue turning, and carrying with them the cord: the poor animal is at length so entangled, that he can neither advance nor retire, and thus falls a prey to the enemy.

This description of the field sports of the Patagonians was heard with much interest by the boys, who now all entreated I would that instant try the effect of my own instrument upon a small trunk of a tree which we saw at a certain distance. My throws entirely succeeded; and the string with the balls at the ends so completely surrounded the tree, that the skill of the Patagonian huntsmen required no further illustration. Each of the boys must then needs have a similar instrument; and in a short time Fritz became quite expert in the art, as indeed he was in every kind of exercise that required strength or address: he was not only the most alert of my children, but being the eldest, his muscles were more formed, and his intelligence was more developed, than could yet be expected in the other three.

The next morning, as I was dressing, I remarked from my window in the tree that the sea was violently agitated, and the waves swelled with the wind. I rejoiced to find myself in safety in my home, and that the day had not been destined for out-of-door occupation. Though such a wind was in

reality quite harmless for skilful sailors, for us it might be truly dangerous, from our ignorance in these matters. I observed then to my wife that I should not leave her the whole day, and should therefore hold myself ready to execute any little concerns she found wanting in our domestic arrangement. We now fell to a more minute examination than I had hitherto had time for, of all our various possessions at Falcon's Stream. She showed me many things she had herself found means to add to them during my repeated absences from home: among these was a large barrel filled with small birds half-roasted and stowed away in butter to preserve them fresh: this she called her *game*, which she had found means to ensnare with birdlime in the branches of the neighbouring bushes. Next she showed me a pair of young pigeons which had been lately hatched, and were already beginning to try their wings, while their mother was again sitting on her eggs. From these we passed to the fruit-trees we had laid in earth to be planted, and which were in real need of our assistance, being almost in a decaying state. I immediately set myself to prevent so important an injury. I had promised the boys, the evening before, to go all together to the wood of gourds, for the purpose of providing ourselves with vessels of different sizes to keep our provisions in: they

were enchanted with the idea, but I bargained that they must first assist me to plant all the young trees ; which was no sooner said than executed, excited as we were by our eager desire for the promised excursion.

When we had finished, a little disappointment however occurred ; the evening, I thought, seemed too far advanced for so long a walk, especially as my wife and little Francis were to be of the party. By the time that all were ready, it was too late to think of setting out, and we accordingly postponed the expected pleasure till the following day, when we made the necessary preparations for leaving Falcon's Stream very early in the morning. By sun-rise all were on foot ; for nothing can exceed the alertness of young persons who act in expectation of a pleasurable change of scene. The ass, harnessed to the sledge, played on this occasion the principal character ; his office was to be the drawing home the empty gourds for the service of our kitchen and the table, and in addition, little Francis, if he should be tired in the journey out, he carried our dinner, a bottle of the Canary wine, and some powder and shot. Turk, according to custom, led the way as our advanced guard ; next followed the three eldest boys, equipped for sporting ; after them, their amiable mother, leading the little one ; and Ponto brought up the rear with

the monkey on his back, to which the boys had given the name of Knips. On this occasion I took with me a double-barreled gun, loaded on one side with shot for game, and on the other with ball, in case of meeting with an enemy.

In this manner we set out, full of good humour and high spirits, from Falcon's Stream. Turning round Flamingo Marsh, we soon reached the pleasant spot which before had so delighted us. My wife, who now beheld for the first time its various beauties, was never tired of praising and admiring it. Fritz, who longed to be engaged in some sporting adventure, took a direction a little further from the sea-shore; and sending Turk into the tall grass, he followed himself, and both disappeared. Soon, however, we heard Turk barking loud, a large bird sprang up, and almost at the same moment a shot from Fritz brought it down: but the bird though wounded was not killed; it raised itself and got off with incredible swiftness, not by flying, but by running. Turk pursued with the eagerness of an animal enraged; Fritz, bawling out like a mad creature, followed; and Ponto, seeing what was going on, threw the monkey off his back, and fell speedily into the same track. It was Ponto that seized the bird, and held it fast till Fritz came up. But now a different sort of scene succeeded.

from that which took place at the capture of the flamingo. The legs of that bird are long and weak, and it was able to make but a poor resistance. The present captive was large in size, and proportionately strong; it struck the dogs, or whoever came near, with its legs, with so much force, that Fritz, who had received a blow or two, retired from the field of battle, and dared not again approach this feathered antagonist. Turk, who had gallantly assailed the bird, was also discouraged by some severities applied to his head by the sturdy combatant, and yielded the contest. The brave Ponto alone withstood the animal's attacks; he seized one of its wings, and did not let it go till I reached the spot, which I was long in doing on account of the height of the grass and the great weight of my gun; but when I was near enough to distinguish the bird as it lay on the ground, I was overjoyed to see that it was a female bustard of the largest size ². I had long wished to possess and to tame a bird of this species for our poultry-yard, though I foresaw that it would be somewhat difficult.

To effect the complete capture of the bird without injuring it, I took out my pocket-handkerchief, and seizing a favourable moment, I threw it over the head of the bustard; it could not disengage itself, and its efforts only served to entangle it the more. As in

this situation it could not see me, I got sufficiently near to pass a string with a running knot over its legs, which, for the present, I drew tight, to prevent further mischief from such powerful weapons. I gently released its wing, which was still in the possession of Ponto, and tied that and its fellow close to the bird's body. In short, the bustard was at length vanquished, though not till each and all of us had felt the powerful blows it was capable of inflicting.—But it was our own, and that in a condition to promise its preservation when we should once have conveyed it to Falcon's Stream, and could administer abundance of care and kindness to compensate for the rough treatment it had experienced at our hands.

Without further delay we removed the prisoner to the spot on the shore where some of our companions had been waiting our return. On seeing us, Ernest and Jack ran briskly forward, bawling out, Oh what a handsome bird! And what a size! What beautiful feathers!—I will lay a wager that it is a female bustard, said Ernest, the instant he had cast his eyes upon it. And you would win, my boy, answered I; it is a female bustard; its flesh is excellent, having somewhat of the flavour of the turkey, to which it also in some other respects has a resemblance. The male spreads its tail in

the form of a wheel, as is said, to please its female. Let us endeavour to tame and preserve it by all means.

Mother.—If I had the choice, I would give it back its liberty: most likely it has young ones which stand in need of its assistance.

Father.—For this once, my dear, the kindness of your heart misleads you; the poor bird, being wounded, would perish if set at liberty, for want of care. If, when I have examined its wound, I find it too serious to admit of cure, I shall kill it, and thus secure an excellent dish. But if the wound is slight, we shall have gained for our poultry yard a bird of rare value on account of its size, and which will, it may be hoped, attract its mate, and thus furnish us with a brood of its species: should it even happen that it has at this time a young brood, it is not improbable that they will find the way to take care of themselves, for no doubt, like chickens, they were able to run as soon as they came out of the egg.

While conversing on this subject I had been fixing the bustard on the sledge, taking care to place it in such a posture as to be the least painful, and to avoid exciting it to struggle against its fetters. We then pursued our way towards the wood where Fritz and I had seen such troops of monkeys, who in their spite thought to beat us from the field by assailing us with showers of cocoa-nuts. Fritz

now again repeated the adventure with much humour to his mother. During this recital, Ernest was employed in going a little from us in every direction, in admiration of the height and beauty of the trees: he stopped in ecstasy at the sight of one in particular which stood alone, gazing with rapturous wonder at the prodigious distance from the root to the nearest bunches of cocoa-nuts, which he saw hanging in clusters under their crown of leaves, and which excited an eager desire to possess some of them. I glided behind him without his perceiving me, and was highly amused with the expression of his features: at length he drew a deep sigh and uttered these words:—Heavens! What a height!

Father.—Yes, my Ernest, they are indeed at a most unaccommodating height, and not a monkey in the way to throw them down to you! Even were I to set Knips at liberty, besides that he is not in the habit of giving away what he might keep for himself, he would perhaps take it into his head to stay in the tree when once there, so fond is every creature that lives of liberty! It is really a pity, and I am sure you are of my opinion, that those fine cocoa-nuts cannot find a way to drop down into your mouth.

Ernest.—No indeed, father, this is not the case; I have no great mind to them, I assure

you; they are too hard, and would fall from too great a height: I should expect to have a tooth or two knocked out at least.

Scarcely had he ended his sentence, when a nut of the very largest size fell down. Ernest, alarmed, stepped aside, and looked up at the tree: another fell, and almost near enough to touch me; so that I was no less surprised than he, not being able to imagine the cause of the phenomenon. Not the smallest sign of a living creature appeared, and I was certain that cocoa-nuts never fall of themselves, but when in a state of over-ripeness, while those were absolutely hard and immature.

Ernest.—This is somewhat like the adventures of Fairy-land, father, I think—No sooner do the personages form a wish, than it is granted.

Father.—I begin indeed to think so. However, it may be that the magician who is so ready to oblige us, may lie concealed behind some of the leaves in the tree in the form of a wicked little monkey, which all the time may not intend so much to do us a favour, as to drive us from the place.

Ernest now ventured to take up the nuts. We found them even too unripe to be made use of, and were more than ever at a loss to account for their falling from the tree, round which we continually paced, endeavouring to

explain the mystery. In vain, however, we strained our eyes; we saw nothing, but now and then a slight motion of the leaves: but neither bird nor beast appeared; and not a breath of wind was stirring.

Fritz had by this time concluded his narration to his mother; and observing that Ernest and I seemed occupied by something of a perplexing kind, and looked up repeatedly at one tree, he supposed we must have discovered some animal in it, and ran to have his share of the adventure, bringing also his younger brothers. We told him what had passed:—he shewed us that he had the eyes of a lynx. I shall soon, said he, see what it all means, raising his face to gaze at the tree; if one would but fall at this moment, I would soon tell you who threw it.—At the very instant two nuts fell, and so near to the speaker as to bruise his lip and his chin. Ernest could not refrain from laughing heartily. The magician is at least polite, said he; he conducts his gifts to your very mouth; and it is no fault of his if the dimensions of yours are not large enough to receive it:—but look, look, there are two more falling close to our mother and Francis. How well-behaved this magician shows himself;—In proportion as the guests increase, he takes care to send one for each. Let us quickly open one of them and refresh ourselves with the liquor it con-

tains, in drinking to the health of our unknown friend. We did so ; and each obtained a small quantity of the milk, in the fragments of the shell ; and all called out together as they drank it, looking up at the tree, Long life and thanks to the good magician!—Ah, ah, I see him ; there he is, exclaimed Jack. Oh, heavens! what a hideous creature! what an ugly shape he has! he is as large as my hat, and has two monstrous pincer claws.

Where is he then? said I, for I do not see him.—There, that is he, father, crawling slowly down the tree ; do you see him now? —It was a land crab, an animal that, to say the truth, deserved Jack's description of him. The land crab resembles the sea crab, but is ten times more hideous: some kinds of them are excellent food, and are the principal subsistence of the natives where they are found. The one we now met with was of the kind called cocoa crab, on account of its fondness for that fruit. It crawls with great difficulty and slowly, up the trunk of the tree; when it has reached the clumps of leaves, it conceals itself in them, and falls to pinching off the bunches of cocoa-nuts at the stalks; he separates and then throws them down one by one, which often bruises them considerably. The crab then descends, and finds below a plentiful regale. It is said by some that their claws are strong enough to break the shell

of the nut; but for myself, I doubt this, having always believed rather that they suck the milk by means of the small hole found in the fruit near the stalk. The land crab is not dangerous unless you are within reach of its claws, or, which is rarely the case, when they are found together in great numbers. Little Francis on seeing the animal was terribly frightened, and hid himself behind his mother; even Ernest drew back, and looked for a place of refuge: Jack, with a menacing air, raised the end of his gun; and we all cast some looks of curiosity as the creature slowly descended the tree. The moment he was on the ground, the intrepid Jack aimed a blow at him with his gun, which missed him. The crab, finding himself attacked, turned round and advanced with his claws stretched open towards his enemy. My little ruffian defended himself valiantly; he did not retreat a single step, but his attempts to strike, entirely failed, for the crab was perfect in the art of evading every blow. I however determined not to interfere: I saw that there could be no danger to the boy, and that the scene would conclude by his subduing the animal, if he conducted the affair with prudence and address. I must observe that nothing could be more amusing than this exhibition of a fight between a little boy and a crab.

After some time, being tired out with so many fruitless attempts, and perhaps recollecting that the pinches he might get from the animal's claws would not be very agreeable, and finding himself likely to be brought to close quarters with him, suddenly gave him the slip and ran off. The other boys now burst into peals of laughter, bawling out: So the magician has conquered you! he has made you run away! poor Jack! but why did you engage with a magician, Jack? On this, the lad piqued by their jeers, stopped short, threw his gun and his game-bag on the ground, stripped off his coat, spread it before him, and made a stand at his adversary, who was making up to him with his claws stretched out in a menacing sort of motion. Jack, without a moment's hesitation, threw his coat upon the creature, and wrapped him round in it; then tapping on the outside upon his shell: Wicked magician, cried he, I have you at last! I will teach you to brandish your horns another time.

I laughed so heartily at this scene, that I had not the power to give him any assistance. I saw by the motion under the coat that the crab was still alert and angry. I therefore took my hatchet and applied two or three powerful blows with it on the coat, which I took for granted would finish the

affair at once. I lifted up the coat ; and, as I expected, the terrible animal was dead, but still preserved a menacing posture.

What an ugly monster ! cried Jack, as he stood over him : but far from being terrified by his ugliness, it only served to quicken my ardour : —one must always be glad to deliver the earth of such a monster.

You would have something to do, my young Hercules, said I, tapping him on the shoulder ; no animal is so common as the crab on the shores of the sea : they are of numerous kinds, and may be seen by millions, all equally ugly. This, if I mistake not, is distinguished by the name of *the poet's crab*. What say you, Jack, to a thought just come into my head, of creating an order of knighthood for you, in which you shall be dubbed—*Sir Crab* ? This is the second time that you have engaged in combat with these pincer-clawed animals. We will say nothing of the first, in which you got a bite by the leg ; but this time you have evinced considerable courage and presence of mind. The thought of throwing your coat over the creature was well imagined ; I doubt if you would have subdued him by any other means. It must be an animal of prodigious strength for its size, to be able to open a cocoa-nut, so that it was no inconsiderable enemy you were engaged with : but human prudence and rea-

son give man the advantage over even the most formidable of the brute creation.

Jack.—May we eat crabs, father?—they are so very ugly!

Father.—Use makes all things easy. Many ugly things find their way to the most delicately served tables. For our crab, it is the favourite food of the negro slaves of the Antilles, and frequently of their masters also. I should think its flesh must be hard and indigestible; but we will make trial of it for dinner.

I put the famous animal along with the cocoa nuts it had been the means of procuring us, together on the sledge, and we resumed our march. As we advanced, the wood became thicker and more difficult to pass; I was frequently obliged to use the hatchet to make a free passage for the ass. The heat also increased, and we were all complaining of thirst, when Ernest, whose discoveries were generally of a kind to be of use, made one at this moment of a most agreeable nature. He has already been described as a great lover of natural history, and now he was continually gathering, as he proceeded, such plants as he met with, and examining them with care, with the view of adding to his stock of knowledge. He found a kind of hollow stalk of a tolerable height, which grew at the foot of the trees, and fre-

quently entangled our feet in walking. He cut some of the plants with his knife, and was much surprised in about a minute to see a drop of pure fresh water issue from them at the place where the knife had been applied: he showed it to us, put it to his lips, and found it perfectly agreeable, and felt much regret that there was no more. I then fell to examining the phenomenon myself, and soon perceived that the want of air prevented a more considerable issue of water. I made some more incisions, and presently water flowed out as if from a small conduit. Ernest, and after him the other boys, refreshed themselves and quenched their thirst at this new fountain, in the completest manner. For my own part, touched with deep gratitude for the goodness of God towards me and my beloved family, I raised my eyes to heaven: See, children, said I, what a blessing is sent us by Providence in these beneficial plants, the name of which I am much concerned to be unacquainted with. What would become of poor travellers in this burning climate, in crossing such immense forests far from the relief of water-springs! they must inevitably perish with heat and thirst, if the Almighty did not extend his goodness to the providing these necessary benefits.

I tried the experiment of dividing the plants

longways, and they soon gave out water enough to supply even the ass, the monkey, and the wounded bustard. We were still compelled to fight our way through thick bushes, till at length we arrived at the wood of gourds, which was the object of our excursion, and we were not long in finding the spot where Fritz and I had once before enjoyed so agreeable a repose. Our companions had not soon done admiring and wondering at the magnificence of the trees they now beheld, and the prodigious size of the fruit which grew in so singular a manner upon the trunk. Fritz, who was already acquainted with particulars respecting them, now performed the office of lecturer to the rest, as I before had done to him. I was glad to observe that he had not forgot any part of the detail he received from me during our first visit ; and while he was talking, I strolled about the wood, choosing among the numerous sizes of the gourds, such as were particularly suited for our necessities, and marking the places in my mind's eye. I sought also to discover whether the malicious horde of monkeys were not still in the same neighbourhood, for I a little apprehended being molested by them during our occupation. I, however, to my great satisfaction, discovered no trace of them, and I returned to my companions.

I found Jack and Ernest actively employed

in collecting dried branches and flints, while their mother was occupied in attending to the poor bustard, which however she saw reason to believe- was not materially injured. She remarked to me that it was cruel to keep her any longer blinded and her legs tied together on the sledge. To please her, I took off the covering and loosened the string on the legs, but still left it so as to be a guard against its running away or inflicting blows on those who might approach. I contented myself with tying her by a long string to the trunk of a tree, that she might relieve herself by walking about. She had by no means the savageness of manners I should have expected, excepting when the dogs went near her. She did not appear to have any dread of man; which confirmed my previous belief, that the island in which we existed, had absolutely no human inhabitants but ourselves.

The boys now amused themselves with making a large fire, which they joyously surrounded. I took the liberty to laugh at them, and asked if they had become salamanders, or inhabitants of the planet Mercury, who, it is said, make fires to refresh themselves from the burning heat of the sun; the heat of our island could scarcely be less ardent, and this irony was therefore fair and admissible.

The fire, father, is to enable us to cook the
VOL. II. F

magician.—Ah, hah, that is quite another thing, replied I. It was then for the same purpose, I suppose, that I saw you picking up some large shells: you mean no doubt to use them in the cooking, instead of the rind of the gourds which would not bear sufficient heat.

They all agreed to my conclusion. Begin then, continued I, by making the dish you will want for dressing your crab, before you make a large fire and get roasted yourself by its side.

I require also, said my wife, that some vessels to contain milk, and a large flat spoon to cut out my butter by pieces, and next some pretty plates for serving it at table, should be completed, gentlemen, among you all.

Father.—You are perfectly reasonable in your demand, dear wife, said I; and for me there must be manufactured some nests for the pigeons, some baskets for eggs, and some hives for bees.

All.—Oh yes, these things must all be made, we will set earnestly to work.

Jack.—But first, father, let me make a dish for my crab; the excessive heat would certainly make him unfit to be eaten by the evening, and I should be sorry to be obliged to throw away what it cost me so much trouble to obtain: I should soon have finished, if

you will tell me how to divide one of the rinds with a string.

Father.—Well, well, it is but fair to allow you to enjoy the fruit of your victory. As to the cutting with a string, it was good for something when we had no saw. I will however show you, for fear of the worst, how to do it, though I took care to bring here the different instruments I thought we might want. Gather then a sufficient quantity of the gourds, of different sizes, and you shall see how soon we will cut them.

They all began to gather or collect, and we were soon in possession of a sufficient number of this valuable commodity. We found a certain quantity already dry upon the tree, and these we considered fit for immediate use: many also were so bruised or broken in falling, and others so immature, that we threw them aside as useless. We now began our work: some had to cut; others to saw, scoop out, and model into agreeable forms. It was a real pleasure to witness the activity exhibited in this manufacture of porcelain: each tried what specimens of imagination he could present for the applause of his companions. For my own part, I made a pretty basket, large enough to carry eggs, with one of the gourds, leaving an arch at the top to serve as a cover. I likewise accomplished a certain number of vessels, also with covers, fit

to hold our milk, and then some spoons to skim the cream. My next attempt was to execute some bottles large enough to contain a supply of fresh water, and these occasioned me more trouble than all the rest. It was necessary to empty the gourd through the small opening of the size of one's finger which I had cut in it; I was obliged after loosening the contents by means of a stick, to get them out by the friction of shot and water well shaken on the inside. Lastly, to please my wife I undertook the labour of a set of plates for her use. Fritz and Jack engaged to make the hives for the bees, and nests for the pigeons and hens. For this last object, they took the largest gourds, and cut a hole in front proportioned to the size of the animal for whose use it was intended: they had when finished so very pretty an appearance, that little Francis was ready to cry that he was not quite small enough to get into and live in one of them. The pigeons' nests were intended to be tied to the branches of our tree; those for the hens, the geese, and the ducks, were to be placed between its roots or on the sea-shore, and to represent a sort of hen-coop. When the most essential of the utensils were finished, I allowed them, as they had requested, to add a dish to dress their crab in. This also was soon accomplished; but when the cooking was completed, they discovered that

they had no water. We found nothing on this spot like our providential *fountain* plants, as we had named them. The boys entreated me to go about with them in different directions, and try to find a small supply of this precious article, not daring by themselves to venture further into the wood.

I was therefore of necessity compelled to accompany them. Ernest with great eagerness proposed relieving me of this trouble, and putting himself in my place. He had found it impossible to succeed in assisting to make the utensils ; he broke more than half the pieces of gourd he took in hand ; and to make amends for his awkwardness, he exerted himself in every direction to discover a water-spring, or to do something else that might be useful. It was not long before we heard him calling loudly to us, and saw him returning in great alarm. Run quick, father, said he, here is an immense wild boar. Oh, how he frightened me ! I heard him grunting quite close to me, and then he scampered away to the wood, and I hear him at this very moment.

Here, here ! I then called out to the boys : call the dogs quickly ; here is fine game for us, if we are so lucky as to catch it. Halloo, here, Turk, Ponto ! The dogs arrived full gallop. Ernest was our leader, and conducted us to the place where the boar had approach-

ed him; but he was gone, and we saw nothing but a plot of potatoes which had the appearance of having been ransacked by the animal. The ardour for the chase had been somewhat checked in Jack and Ernest, when they considered for a moment that they had so formidable a creature as a boar to encounter; they stopped short, and began to dig potatoes, and left it to Fritz and me to follow the traces of the dogs. We soon heard the cry of the latter; for they had overtaken the runaway, and soon after the most hideous growling assailed our ears from the same quarter. We advanced with caution to the spot, holding our guns before us in readiness to fire together, the instant the animal should show itself within the proper distance. Presently the spectacle of the two brave creatures attacking him on the right and left presented itself; each held one of his ears between their teeth. But the beast was not a boar, as the account of Ernest had made me suppose, but a pig of the true common breed, which on our approach, appeared rather to ask for our assistance, than to have any inclination to attack us. Contrary to our expectation, Fritz and myself also suddenly lost the relish for sporting against this animal; for we immediately recognised in the supposed boar, our own sow which had run away and had so long been lost. After the first surprise we could

not resist a hearty laugh ; and then we hastened to disincumber our old friend of the teeth of her two adversaries. Her frightful squalling resounded through the wood and drew the attention of our companions, who now ran to the place, when a warfare of banter and accusation went round among the parties :—Fritz knew certain persons whose passion for the chase ended in digging potatoes ! Jack and Ernest returned the sally by complimenting Fritz on the fine martial appearance of the wild boar they had been so fortunate as to make captive !—Why, Fritz, we knew in a moment, by the grunting, that it was only our old sow.—You however believed it to be a wild boar, Mr. Ernest, returned Fritz, and even after you had seen it. I know not what Ernest would have answered ; for the attention of all was attracted to a kind of small potatoe which we observed lying thick on the grass around us, and which had fallen from some trees which appeared loaded with the same production : our sow devoured them greedily, thus consoling herself for the fright she had been put into, and the pain the dogs had occasioned her.

The fruit was of different colours, and extremely pleasing to the eye. Fritz expressed his apprehension that it was the pernicious kind of apple called the Mancenilla, against which I had so strenuously cautioned them ;

but the sow ate them with so much eagerness, and the tree which bore them being neither so high, and having neither the form nor foliage ascribed by naturalists to the Mancenilla, made me doubt of the truth of his idea. I forbore from immediately pronouncing its condemnation; but I desired my sons to put some of the fruit in their pockets, to make an experiment with them upon the monkey. I was shortly after nearly satisfied of their harmless quality, from seeing that the two dogs also fell upon them with eagerness; but I persisted in forbidding the boys to taste them till I had further examined into their nature and properties; and they all of course obeyed me. We now again, from extreme thirst, began to recollect our want of water, and determined to seek for some in every direction. Jack sprang off and sought among the rocks, hoping, and with reason, that he should discover some little stream: but scarcely had he left the wood, than he bawled to us that he had found a crocodile

A crocodile! cried I with a hearty laugh, you have a fine imagination, my boy! who ever saw a crocodile on such scorching rocks as these, and with not a drop of water near? Now, Jack, you are surely dreaming

Not so much of a dream as you may think, father, answered Jack, trying to

speak in a low voice ;—fortunately he is asleep ;—he lies here on a stone at his full length ;—he is exactly like our mother.

Father.—This is excellent, upon my word ! So then your mother is like a crocodile ?—This is really an indiscreet sort of a joke.

Jack.—I meant, father, that the crocodile is about as long as the height of our mother ; I had not, I assure you, the least idea of a joke ; for it is certainly a crocodile, though perhaps only a young one Do, father, step here and look at it, it does not stir in the least.

I knew not what to think : we stole softly to the place where the animal lay ; but instead of a crocodile I saw before me an individual of a large sort of lizard, named by naturalists *Leguana* or *Yguana*³, and the flesh of which is considered in the West Indies as the greatest delicacy. I explained this to my sons, and tranquillised them as to the danger of approaching this animal, formed by nature of a mild character, and excellent as food. All were then immediately seized with the hope of seizing the lizard and presenting so rare a prize to their mother. Fritz in a moment had his gun ready, and was taking his aim, but that I was in time to lay hold of his arm and prevent him : You are always too quick, said I, in your determinations ; your piece might

have missed, or you might have wounded him only slightly; for this sort of animal is protected by a coat of scales as you see, and it is extremely difficult to destroy him. I think too that he is known to be extremely dangerous if approached when he is angry. Let us try another sort of experiment; as he is asleep, we need not be in a hurry: only a little contrivance is necessary to have him safe in our power alive, and the process will afford us all an amusing spectacle.

I cut a stout stick from a bush, to the extremity of which I tied a string with a running knot. I guarded my other hand simply with a little switch, and thus with cautious steps approached the sleeping animal. When I was very near to him, I began to whistle a lively air, taking care to make the sounds low at first, and to increase in loudness till the lizard was awaked⁴. The creature appeared entranced with pleasure as the sounds fell upon his ear; he raised his head to receive them still more distinctly, and looked round on all sides to discover from whence they came. I now advanced by a step at a time, without a moment's interval in the music, which fixed him like a statue to the place. At length I was near enough to reach him with my switch, with which I tickled him gently, still continuing to whistle, one after the other, the different airs I could

recollect. The lizard was bewildered by the charms of the music ; the attitudes he threw himself into were expressive of a delirious voluptuousness ; he stretched himself at full length, made undulating motions with his long tail, threw his head about, raised it up, and by this sort of action, disclosed the formidable range of his sharp-pointed teeth, which were capable of tearing us to pieces if we had excited his hostility. I dexterously seized the moment of his raising his head, to throw my noose over him. When this was accomplished, the boys drew near also, and wanted instantly to draw it tight and strangle him at once ; but this I positively forbade, being unwilling to cause the poor animal so unmerited a suffering. I had used the noose only to make sure of him in case it should happen that a milder mode of killing him, which I intended to try, failed of success, in which case I should have looked to the noose for protection ; but this was rendered unnecessary. Continuing to whistle my most affecting melodies, I seized a favourable moment to plunge my switch into one of his nostrils ; the blood flowed in abundance, and soon deprived him of life, without his exhibiting the least appearance of being in pain ; on the contrary, to the last moment he seemed to be still listening to the music.

As soon as he was dead I allowed the boys to come quite near and to tighten the noose, which we now found useful to draw him to the ground from the large stone on which he lay. My sons were delighted with the means I had used for killing him without pain.—But little praise is due to me, I replied; for I have often in books of travels, read the description of the manner of deluding and destroying this animal, so well known in the West Indies. But now let us consider of the best way for transporting to Falcon's Stream so large and valuable a booty. After a moment of reflection, I perceived that I had better come at once to the determination of carrying him across my shoulders: and the figure I made with so singular an animal on my back, with his tail dragging on the ground, was not the least amusing circumstance of the adventure. Fritz and Jack presented themselves as pages, contending which should support my train, as they called the tail, which, independently of the good-humour inspired amongst us, considerably eased me of the weight, and gave me the air of an old Chinese emperor habited in a superb royal mantle of many colours, for those of the lizard shone like precious stones in the eyes of the sun.

We were already far advanced in our return, when we distinguished the voice of

my wife calling upon my name in a tone which indicated great uneasiness; and in addition, we heard loud sobs from little Francis. Our long absence had excited painful apprehensions concerning us: we had forgot on this occasion to give them notice of our approach, by firing our gun, and they had imagined some terrible disaster must have befallen us. No sooner, however, did our cheerful notes in speaking reach their ear, than their fears and lamentations were changed to joy, and we soon found ourselves assembled together, the happiest of beings, under a large gourd-tree, where we related to our dear companions every particular of the excursion we had made; not forgetting Jack's singular fancy of finding a resemblance between his mother and the lizard, who now lay extended at her feet. We had so many things to inform her of, that we lost sight of the principal object which caused our separation; and till she reminded us with some regret at our ill success, we forgot to mention that we had failed of procuring any water. My sons had taken out some of the unknown apples from their pockets, and they lay on the ground by our side. Knips soon scented them, and according to custom he came slyly up and stole several, and fell to chewing them with great eagerness. I myself threw one or two to the bustard, who

also ate them without hesitation. Being now convinced that the apples were not of a poisonous nature, I announced to the boys, who had looked on with envy all the time, that they also might now begin to eat them, and I myself set the example. We found them excellent in quality, and I began to suspect that they might be the sort of fruit called *guava*, which is much esteemed in such countries. The tree which bears them is sometimes twenty feet in height; no doubt therefore, those from which we procured the fruit, were too young to have attained their full stature. The tree itself is of so fertile a nature, that in inhabited countries they are constantly obliged to be thinned and cut down, on account of the quantity of land they would occupy.

This regale of the apples had in some measure relieved our thirst; but on the other hand, they had increased our hunger; and as we had not time for preparing a portion of the lizard, we were obliged to content ourselves with the cold provisions we had brought with us. But we contrived to have an excellent dessert of potatoes, which the boys had had the foresight to lay under the cinders of the fire they had made to cook their crab.

We had scarcely finished taking this refreshment, before my wife earnestly entreated

that we might immediately begin our journey home, to be sure of arriving before dark. In fact, it appeared to me, as the evening was so far advanced, that it would be prudent to return this once without the sledge, which was heavy laden, and the ass would have drawn it but slowly : I was besides, inclined to take a shorter road by a narrow path that divided a plantation of thick bushes, which would have been too difficult a passage for the ass burthened with the sledge. I therefore determined to leave it on the spot till the following day, when I could return and fetch it, contenting myself with loading the ass for the present, with the bags which contained our new sets of porcelain ; with the lizard, which I feared might not keep fresh so long ; and our little Francis, who began to complain of being tired. I took these arrangements upon myself, and left to my wife and Fritz, the care of confining the bustard in such a manner that she could walk before us without danger of escaping.

When these preparations were complete, our little caravan was put in motion, taking the direction of a straight line to Falcon's Stream. On leaving the wood of gourds, we arrived at a spot where we found more of the guava trees, and could not resist the temptation to stay a few moments and secure a new supply. The course of our route lay

next along a majestic wood of oaks, agreeably interspersed with fig-trees of luxuriant growth, and of the same species as those at Falcon's Stream. The ground in this place was absolutely covered with acorns. My young travellers, ever on the watch for something new and gratifying to the palate, could not refrain from tasting them : in form they exactly resembled the same fruit in Europe, though from the difference of climate, they would probably not be the same in regard to quality and flavour. One of the boys bit an acorn in two ; and finding it both sweet and mild to the taste, he told his brothers, who soon fell eagerly to filling their own pockets with them, as well as mine and those of their mother. I always hailed with satisfaction every occasion that presented, of increasing the number of our resources for support : in the one that now presented itself, I perceived the hope that we might not only be ourselves nourished but our poultry also : I more than ever admired the magnificence of the trees which at this moment covered us with their shade, and made us a present of so inestimable a value : on considering, I recognised that they were a kind of oak which remains always green, and are a common production of the woods in Florida, and that the Indians of North America extract from its fruit an excellent kind

of sweet oil, which they use in cooking their rice. Numerous kinds of birds subsist upon these acorns. This we were led to remark, by the wild and discordant cries of several sorts of jays and parrots, which were skipping merrily among the foliage and the branches. The boys would instantly have fired their guns; and I could only prevail upon them to desist, by observing how late it was, and promising that we would return another time, and thus procure them an opportunity for their favourite amusement.

We arrived shortly, and sooner than we expected, at Falcon's Stream; the path we had taken had so considerably lessened the distance, that we were in time to employ ourselves in some trifling arrangements, before it was completely dark. My wife had great pleasure in taking out her service of porcelain and using some of the articles that very evening; particularly the handsome egg-basket and the vessels for the milk. Fritz was instructed to dig a place in the ground to serve for a kind of cooler, the better to preserve the milk; and we covered it with boards and put heavy stones to keep them down. Jack took the pigeons' nests, and scampered up the tree, where he nailed them to the branches; he next laid some dry moss within, and placed one of the female pigeons we had contrived to tame, and

which at the time was brooding, upon it ; he put the eggs carefully under the mother, who seemed to accept his services, and to coo in return, with gratitude.

Ernest was occupied in distributing and fixing those intended for the fowls among the roots of the trees : when he had finished, it was of importance to observe how well they would accustom themselves to this their new abode ; they were already on their perches, with their head under their wing and half asleep, and took very much amiss the being thus disturbed ; while Ernest, for his part, was enraged at the little inclination they discovered to inhabit their new abode.

My own employment was to clean the inside of the lizard and prepare a piece of it for our supper, my wife having expressed an extreme repugnance to both the lizard and the crab ; we therefore added some potatoes and some acorns, and dressed them together, and thus suited every palate. Francis had the care of turning the spit, and liked his office all the better, for its allowing of his being constantly near his mother. We all drew near a clear brisk fire while the supper was in hand : a sea breeze had refreshed the air, and after great fatigue, a good fire seldom fails to occasion agreeable sensations. This well-spent and useful day was concluded by a refreshing repast, at which all but my wife

bestowed encomiums on the palatable properties of the leguana. My wife could not prevail upon herself even to taste it ; she therefore supped on the potatoes. The crab was found to have but little flavour, and was put aside as useless. We concluded the exertions of the day, by contriving a comfortable bed for the bustard by the side of the flamingo, and then hastened to stretch our weary limbs upon the homely couch, but rendered by fatigue luxurious, that waited for us in the giant tree.

CHAPTER XXIII.

Excursion into unknown countries.

IT is scarcely necessary to relate, that my first thought the next morning, was to fetch the sledge from the wood. I had a double motive for leaving it there, which I had refrained from explaining to my wife, to avoid giving her uneasiness. I had formed a wish to penetrate a little further into the soil, and ascertain whether any thing useful would present itself beyond the wall of rocks. I was, besides, desirous to be better acquainted with the extent, the form, and general productions of our island: I wished Fritz only, who was stronger and more courageous than his brothers, to accompany me; and accordingly left the three others, and Ponto, to protect my wife. We allowed Turk to be our travelling companion, who did not fail to testify his joy by jumping about, and barking loud. We set out very early in the morning, and drove the ass before us for the purpose of drawing home the sledge.

On reaching the wood of ever-green oaks, we found the sow feeding voluptuously upon the acorns under the trees. We wished her

a good appetite, and begged her to admit us to the honour of partaking her breakfast; and accordingly Fritz filled the pockets of his waistcoat with some of them. We perceived with pleasure that the lecture of the preceding day had rendered the animal more tractable: she did not now seek to avoid us; and we might even have induced her to return home, if we had had time to take the pains. As we were quietly picking up some of the acorns, we observed some birds, which occupied the wood in every direction, advancing towards us. Some of them were clothed with a plumage of exquisite beauty; and for this once, I could not refuse Fritz the pleasure of firing upon them, that we might in consequence obtain a nearer view, and inform ourselves respecting their species. He brought down three. I recognised one to be the great blue Virginia jay, and the other two were parrots. One of the two was a superb red parrot; the other was green and yellow.

While Fritz was reloading his gun, we heard a singular sort of noise which came from a distance: at one moment it resembled a muffled drum, at another, the noise made in sharpening a saw. My first idea was of music played by savages, and we retreated quickly to hide ourselves among the bushes to listen. By degrees we advanced

towards the place from whence the sound appeared to come ; but perceiving nothing to alarm us, we separated some of the branches with our hands, and then discovered a handsome bird about the size of the English cock ; and, like it too, adorned with elegantly-formed smooth feathers round the neck, and a comb upon his head. The animal stood erect on a decayed trunk of a tree, which was lying on the ground, and at this moment exhibited some singular gestures. His tail was spread in the form of a fan, similar to that of the turkey-cock, but shorter ; the feathers round his neck and head were erect and bristling. He sometimes agitated them with so quick a motion, as to make them appear like a vapour which suddenly inclosed him ; sometimes he whirled himself round and round on the trunk of the tree ; at others he moved his head and eyes in such a manner as to express a state of distraction, making at the same time, the singular kind of noise with his voice, which had alarmed us, and which was preceded and followed by a sort of explosion. This last was caused by a motion of his wing striking in a quick measure on the trunk, which was hollow and dry, and made the noise resemble a muffled drum. All around him, there was assembled a great number of birds of the same species, but

much smaller, and of a less beautiful form. One and all fixed their eyes upon him, and seemed delighted with the pantomime. I contemplated this extraordinary spectacle, of which I had formerly read an account, with astonishment. The number of the spectators of the feathered actor, increased every moment ; and the performance increased in spirit also, in proportion, presenting the idea of a perfect intoxication or delirium of the creature. At this moment, Fritz, who stood a little behind me, put an end to the scene by firing off his gun. The actor fell from the stage, and stretching himself on the sand, breathed his last, and the spectators betook themselves suddenly to flight. I must confess, the interest I took in the scene was of so lively a nature, that I could not refrain from reproaching Fritz in an angry tone. Why, said I, must we be always applying the means of death and annihilation to the creatures that fall in our way ? Is not nature a thousand times more exhilarating in her animated movements, which express life and enjoyment, than in the selfish scheme of destruction you seem so fond of ? Some allowance should no doubt be made for the curiosity of youth, for necessities caused by our situation, and even for the taste you have acquired for sporting ; I therefore, as you well know, do not object to your kill-

ing now and then a little game, or some singular or dangerous kind of animal ; but moderation is on all occasions useful, and the spectacle of this bird, employed in such earnest endeavours to draw his females around him, was at least as amusing, as to see him stretched there at length, and lifeless, who but two minutes ago exhibited such rapid and lively motions ! His pretty hens too all dispersed in terror, and deprived of the possibility of ever more admiring him or being his companions.

Fritz looked down, ashamed and sorry. I observed to him that the thing being done, there was now no remedy ; that the fetras or heath-cock was much esteemed as game ; and that as the mischief had occurred, he had better take it from the ground and carry it to his mother.

He did as I desired ; and in spite of my lecture I saw that he was rejoiced to have acquired such a prize. Is it not a beautiful creature, father ? said he : but I am most curious to be informed what all his action was intended to represent.

Father.—I imagine his gestures and his cries were intended to assemble his females, of which he has a large number, similar to the common cock of Europe. I cannot help thinking, Fritz, how cruel it was thus to interrupt the poor creature's innocent amusements.

Fritz.—I am now extremely sorry for it, father; particularly when I recollect that we might have caught him alive, and that it is so desirable to have possessed this kind of fowl at Falcon's Stream.

Father.—This is precisely what I was going to observe; I am not sure that it is now too late to effect such a plan;—when we see either of the hens disposed to brood, we will bring the monkey here to search about for the eggs of these animals; if we should be so lucky as to find a nest, which I think probable, we will take away the eggs, and put them under the brooding hen; by these means we shall procure some of this handsome race of fowls.

We now laid the dead cock upon the ass's back, and proceeded on our journey. We soon arrived at the guava trees, and a little after at the spot where we had left the sledge in the wood of gourds, when we found our treasures in the best possible condition: but as the morning was not far advanced, we entered upon our intended project of penetrating beyond the wall of rocks.

We pursued our way in a straight line at the foot of these massy and solid productions of nature, every moment expecting to reach their extremity, or to find some turn, or breach, or passage through them, that should conduct us into the interior of the island, if, as I pre-

sumed, it was not terminated by these rocks. We walked on, continually looking about, that nothing might escape us worthy of notice, or to be enabled to anticipate and avoid such dangers as should threaten. Turk with his usual bravery took the lead, the ass followed with lazy steps shaking his long ears, and Fritz and I brought up the rear. We met from time to time with some small streams which afforded a most agreeable refreshment; we passed a wood of guava trees and fields of potatoes and manioc, the stalks of which perplexed our way; but we were compensated for this inconvenience by the fine views which every where presented themselves, and which the low stature of the plants enabled us to see in perfection. To the right, on the high grounds, we saw hares and agoutis in considerable numbers, amusing themselves on the grass in the morning sun. Fritz mistook them for marmots, but not one of them made the whistling kind of sound which is customary with these animals when they see a strange object. The idea of my son seemed therefore to be unfounded: again he wished to be convinced by firing his gun; but fortunately, the rock on which they were stationed, was at too great a distance for it to take effect.

We next entered a pretty little grove, the trees of which were unknown to us; their

branches were loaded with large quantities of berries of an extraordinary quality, being entirely covered with a wax which stuck to our fingers as we attempted to gather them⁶. I knew of a sort of bush producing wax that grows in America, and named by botanists *Myrica cerifera*; I had no doubt that this was the plant, and the discovery gave me great pleasure. Let us stop here, said I to Fritz, for we cannot do better than collect a great quantity of these berries as a useful present to your mother.

A short time after, another kind of object presented itself with equal claims to our attention; it was the singular modes of behaviour of a kind of bird scarcely larger than a chaffinch, and clothed in feathers of a common brown colour. These birds appeared to exist as a republic, there being among them one common nest, inhabited at pleasure by all their tribes. We saw one of these nests in a tree in a somewhat retired situation; it was formed with considerable skill of platted straws and bulrushes intermixed; it appeared to us to inclose great numbers of inhabitants, and was constructed in an irregular sort of form round the trunk of the tree where the branches sprout: it appeared to us to have a kind of roof formed of roots and bulrushes, but more carefully knit together than the rest of the structure. In the sides,

which were unequally formed, we observed a quantity of small apertures seemingly intended as doors and windows to each particular cell of this general receptacle ; from a few of these apertures, issued some small branches, which served the birds as points of rest for entering and returning : the external appearance of the whole, excited the image of an immensely large, open, spunge. The birds which inhabited it were very numerous ; they passed in and out continually, and I estimated that it might contain at least a million. The males were somewhat larger than the females, and there was a trifling difference in their plumage : the number of the males was very small in proportion to the females ; I do not know whether this had been the cause of their thus assembling together.

While we were attentively examining this interesting little colony, we perceived a very small kind of parrot, not much larger than the birds themselves, hovering about the nest⁷. Their gilded green wings and the variety of their colours produced a beautiful effect ; they seemed to be perpetually disputing with the colonists, and not unfrequently endeavoured to prevent their entrance into the building ; they attacked them fiercely, and even endeavoured to peck at us if we but advanced our hand to the structure. Fritz, who was well trained in the

art of climbing trees, was earnestly desirous to take a nearer view of such extraordinary beings, and to secure, if possible, a few individuals. He threw his whole equipage to the ground, and climbed till he reached the nest ; he then tried to introduce his hand into one of the apertures, and to seize whatever living creature it should touch, in that particular cell ; what he most desired, was to find a female brooding, and to carry both her and the eggs away. Several of the cells were empty, but by perseverance he found one in the situation he wished. But he did not pursue his plan without meeting with the full punishment of his curiosity and ungenerous behaviour. He received so violent a stroke from the beak of an invisible bird, that his only care was now to withdraw his hand, which he shook in the air to ease the pain, uttering all the time the most dismal lamentations. But though punished, he was not cured of his fault : no sooner had the pain subsided, than he ventured a second time to pass his hand into the nest, and succeeded in seizing his prey, which he laid hold of by the middle of the body ; and in spite of the bird's resistance, its cries and wailings, he drew it through the aperture and squeezed it into the pocket of his waistcoat ; and buttoning it securely, he slid down the tree, and reached the ground in safety. The sig-

nals of distress sent forth by the prisoner collected a multitude of birds from their cells, who all surrounded him, uttering the most hideous cries, and flying at him with their beaks, till he had made good his retreat. The birds pursued him till he was quite close to my side, when by making a loud noise and waving my pocket-handkerchief, I succeeded in driving them away. He now released the prisoner, and we discovered him to be a beautiful little green parrot, which Fritz entreated he might be allowed to preserve, and make a present of to his brothers, who would make a cage to keep him in, and would then tame him and teach him to speak. I did not oppose his request ; but thinking we had spent too much time upon this singular phenomenon of the bird colony, I bade him prepare quickly for returning home. The birds were naturally the subject of our conversation on the road. It was the first time I had ever witnessed such a spectacle as a swarm of birds living together in a state of society in one nest ; and I was surprised at it. From the circumstance of so young a bird being nestled within the structure, it appeared probable that the true right of property was in this species, and that the brown-coloured birds we at first observed, were intruders, endeavouring to deprive them of it. Thus we find, said I to Fritz, the existence

of social dispositions in almost every class of the animal kingdom, which leads to the combining together for a common cause or benefit. I have not hitherto observed these dispositions among amphibious animals, but it is not unlikely that instances will at some time or other present themselves. A multitude of causes may induce animals to form a body or society, instead of living singly; among them may be supposed the deficiency of females or of males; the charge of the young; providing them with food; or as a means for their safety and protection. Who shall dare to fix limits to the instinct, or to the faculties of the animal creation?

Fritz.—I do not, however, recollect any kind of animals who live thus together in society, except the bees.

Father.—What say you then, my boy, to wasps, drones, and different kinds of ants?

Fritz.—I did not indeed recollect the ants, though I have so often amused myself with looking at them: nothing can be more interesting than the ingenious little houses they construct; observing them attentively, we perceive their industry, their economy, their care of their young;—in a word, all their undertakings, conducted on a plan of society and numbers.

Father.—Have you also observed with what a provident kind of instinct they bring

out their eggs to be warmed by the sun, and for this end remove them from place to place till the time of their maturity?

Fritz.—Is it not probable, father, - that what we take for eggs, are chrysales of ants, which, like many other insects, are thus shut up while the process of their taking wings is in the operation?

Father.—You may be right. Writers on natural history have considered the industry and frugality of these insects, as a subject not unworthy of their close consideration⁸; but if the common ant of our own country excited so much of your admiration, in what words will you express your astonishment at the almost incredible labours which are performed by the ants of foreign countries! Of these there is a kind which build nests of four, six, and eight feet in height, and large in proportion: the external walls of these structures are formed so thick and solid, that neither sun nor rain can penetrate them. These houses contain within, little streets, arched roofs, piazzas, colonnades, and particular apartments for the offices of housewifery: and the whole of this complicated mass is put together with so much solidity of workmanship, that if emptied and cleaned, it might serve for an oven. The ant is for the most part an animal of pilfering propensities, on the profits of which it principally lives; it is

also remarkable for constancy in its designs, and remaining ever in one place: a species of them exists, however, in America, which is known by the name of the *cephalate* or visiting ant; they make their appearance in numerous troops every two or three years, and disperse themselves abundantly in every house: as soon as this visitation is observed, it is customary to open all the apartments, and every receptacle for stores; they enter every where, and in a short time it is found that they have exterminated as effectually the rats, mice, bugs, kakerles (a sort of insect that gives great annoyance in hot countries);—in a word, all the different animals offensive or injurious to man, as if sent on a special mission to remedy the evils these occasion. They do no injury to man, unless they find in him an enemy, who pursues and disturbs their quiet; in which case they attack his shoes so violently, that they are destroyed with incredible rapidity. On the other hand, they cause terrible devastations in plantations of trees, of which they will entirely strip the leaves in a single night: some of the ants crawl up and separate them from the tree, and then throw them down to their fellow-labourers, who are in waiting to receive and carry the leaves to the ant house. This curious species does not build its house above ground, but they dig holes, sometimes

not less than eight feet in depth, and plaster the walls according to the rules of the art of masonry⁹. Some travellers assert that one of the islands of the South Sea is infested by them to such a degree, that human beings cannot venture to disembark in it. The place is therefore, as it were, yielded to them, and is known to mariners by the name of Ant-island.

Fritz.—And has no means been found to stop the progress of their devastations?

Father.—As to what in this respect relates to the ant-island, I am not able to answer your question. In Europe, fortunately for the inhabitants, they are not so formidable: they however occasion sufficient incouvenience to make us study by what means we can best destroy them; and the surest methods are found to be fire and boiling-water. They have, besides, numerous enemies among insects and birds: the most terrible of all is the *myrmecophage*, or great ant-eater. Nature, who no doubt intended in this animal to produce a counterpoise against the abundant increase of ants, furnished it with a long gluey tongue, which it drops into the holes of the ant-house: the ants crawl upon it, and remain fixed. When the tongue is sufficiently covered with them, the ant-eater draws it back, swallows its mouthful greedily, and drops it again with the same success. It

is pretended, that two ant-eaters hostilely engaged against an ant-house, will destroy every inhabitant in a short time. They raise small channels of light sand in the ants' road, which the creatures in passing, fall entirely through, and are received by the enemy, who swallows them in an instant. Different savage nations, the Hottentots in particular, also devour ants by handfuls.

Fritz.—What a frightful idea! I can scarcely believe the account, father: but this is enough on the chapter of ants. You mentioned just now, that in each class of the animal creation there were some individuals to be found which formed themselves into societies; pray tell me which they are.

Father.—I know of no instance among birds, but that we have just been witnessing; but among quadrupeds there is at least one striking example of the social principle:—try to recollect it yourself.

Fritz.—It is perhaps the elephant or the sea-otter?

Father.—You have not guessed the one I thought of: in reality, however, the animals you have named discover also a strong disposition to live in society with their species, but they build nothing like a common house of reception:—try again; when you mentioned the sea-otter, you were not far from the right creature.

Fritz.—Ah, now I have found it: is it not the beaver, father? These animals are said to possess so much intelligence, that they are able to contrive and place dams to such streams or rivers as obstruct their design of building entire villages: by this operation they are furnished with a sort of ditch, which they use for their purpose.

Father.—This is well observed; and, strictly speaking, the marmoset also may be included in the number of sociable quadrupeds: but these latter cannot be said to build, in the literal sense of the word; they dig themselves a common place of abode, a sort of cavern, in the mountains, and in these whole families of them pass the winter comfortably, in a continual sleep. It would have been more blameable in us to have forgotten them, as they are natives of our country; for it is principally in the highest Alps of Switzerland that the animal is found.

We had proceeded a considerable way in this kind of conversation, and had reached a wood, the trees of which were unknown to us: they in a small degree resembled the wild fig-tree; at least the fruit they bore, like the fig, was round in form, and contained a soft juicy substance full of small grains: there was, however, a sharpness and sourness in the taste. We took a nearer

view of these trees, so remarkable for their height, which was from forty to sixty feet : the bark of the trunk was prickly or scaly, like the pine-apple, and wholly bare of branches, except at the very top, where they are loaded with them ; some growing straight, and others bent in different directions. The leaves of these trees, at the extremity of the branches, are very thick ; in substance, tough, like leather ; and their upper and under surfaces presented different tints. But what surprised us the most, was a kind of gum, or bituminous matter, which appeared by some accidental means to issue in a liquid state from the trunk of the tree, and to become immediately hardened by the air. This discovery awakened Fritz's whole attention : in Europe he had often made use of the gum produced by cherry-trees, either as a cement or varnish in the process of some of his youthful occupations ; and the thought struck him, that he could do the same with what he now saw. He accordingly collected with his knife a certain quantity.

As we continued walking, he looked frequently at his gum, which he tried to soften with his breath, or with the heat of his hand, as he had been accustomed to do with that from the cherry-trees ; but he found he could not succeed. On the other hand, his endeavours revealed a still more singular

property in the substance, that of stretching considerably on being pulled by the two hands at its extremities ; and, on letting go, of reducing itself instantly, by the power of an elastic principle. He was struck with surprise at this phenomenon, and sprang towards me, repeating the experiment before my eyes, and exclaiming, Look, father ! if this is not the very kind of Indian rubber we formerly used, to rub out the bad strokes in our drawings : see ! I can stretch it, and it instantly shrinks back when I let go.

Ah ! what do you tell me ? cried I with joy : such a discovery would be an invaluable benefit. The best thanks of all will be due to you, if you have discovered the true *caoutchouc* tree which yields the Indian rubber. Quick, hand it here, that I may examine it.

Fritz.—Look, father, how it will stretch ! But I do not however understand how it can be so immensely valuable to us : can it be made to serve any other purpose than rubbing out a pencil mark ? Nor am I quite sure that it is the very same ingredient. Why is it not black, like that we used in Europe ?

Father.—How many questions you ask at once ! But give me time to breathe, and I will answer them. *Caoutchouc* is a kind of milky sap, which runs from certain trees, and no doubt from these before us, in consequence of incisions made in the bark.

This liquor is received in vessels placed expressly for the purpose: it is afterwards made to take the form of dark-coloured bottles of different sizes, such as we have seen them, in the following manner. Before the liquor which runs out has time to coagulate, some small earthen bottles are dipped into it a sufficient number of times to form the thickness required. These vessels are then hung over smoke, which completely dries them, and gives the dark colour you allude to. Before they are entirely dry, a knife is drawn across them, which produces the lines or figures with which you have seen them marked. The concluding part of the operation is to break the bottle, which has served for a mould, and to get out the pieces by the passage of the neck, when the ingredient remains in the complete form of a bottle; soft to the touch, firm in substance, yet flexible and convenient to carry about, from being not subject to break; and may be even used as a vessel to contain liquor if necessary. In later times it has been discovered that this remarkable substance would extract the mark of black lead from paper; and it is common for artists to cut them into pieces, and to be generally provided with one of them.

Fritz.—The fabrication of this article seems simple enough; therefore let us try to

make some bottles of it, father, which will be convenient for carrying something for us to drink, when we go a long way in pursuit of game. But still I do not perceive how the discovery is, as you say, of so much value to us?

Father.—Not by this use of it alone, certainly; but its quality is admirable for being made into shoes and boots without seams, if we can add the assistance of earthen moulds of the size of the leg or foot to be fitted. Now then I suppose you can understand my reason for the joy I expressed at the sight of so unexpected a benefit. We must consider of some means of restoring masses of the caoutchouc to its liquid form, for spreading upon the moulds; and if we should not succeed, we must endeavour to draw it in sufficient quantities, when wanted for use and in its liquid state, from the trees themselves. There is besides another use for which this substance is both fit and excellent;—that of rendering water-proof any kind of linen or woollen production to which it may be applied.

Well satisfied with the discovery we had made, and our fancy already heated by the image of our fine India rubber boots and shoes¹⁰, we continued our way, endeavouring still further to explore the wood, which stretched before us to a considerable distance. After passing

through it, we reached another called Cœos, with a small part of the skirts of which we were already acquainted, it being the same which stretches from the sea-shore to the top of the rocks. There we rested ourselves with great pleasure for a few minutes, and were regaled with two cocoa-nuts, which Turk had forced from two little monkeys which were playing on the ground like children. Upon the loss of their food they left him and scampered to the top of the trees, while we on our parts devoured the booty. After this refreshment, we once more resumed our route; we were determined to reach the furthest outlet of this great wood of cocoa-trees, to examine the dimensions and limits of our empire: in a short time we had taken some observations that enabled us to ascertain this point; and looking attentively, we recognised the great bay on the right, and on the left Cape Disappointment, which latter had been the furthest point of our earliest excursion.

In this spot alone, and mixed with a quantity of cocoa-trees, I discovered a sort of tree of smaller growth which I presumed must be the sago palm: one of these had been thrown down by the wind, so that I was able to examine it thoroughly. I perceived that the trunk of it contained a considerable quantity of a mealy substance; I therefore, with my

hatchet laid it open long-ways, and cleared it of the whole contents; and on tasting the ingredient, I found it was exactly like the sago I had often eaten in Europe". The operation of cutting the trunk had disclosed also a new treasure, and one which confirmed my belief of having found the real sago palm-tree; it was the perceiving in the powder, the particular kind of larva which lives entirely on sago, and is considered the greatest delicacy of the West Indies for the palate. The interest I felt on the subject, made me eager for an experiment which would immediately determine my conclusion. I directed Fritz to get some dry branches and make a fire; I ran a sharp stick through half a dozen of the larvæ, and toasted them on the flame; the agreeable odour which exhaled from them, and is peculiar to the species, made me certain I was not mistaken: I soon ate one or two of them with a potatoe, which served for bread, and I may venture to assure the epicures of Europe, that if they desire to obtain a delicious morsel, this alone is worth the pains of a sea-voyage for the purpose. Fritz, who from the first had taken the liberty to smile at my fancy, and to assure me that nothing in the world should induce him to partake of my dish, attracted by the delicious smell and good appearance of the food, had no longer the power to desist: he asked me to

give him a small share, and joined me in a chorus of the highest praise. It was now his turn to search for more, and to use the same ceremony in dressing them.

After our repast, we got up and began to consider how much further we would go: the thick bushes of bamboo, through which it was impossible to pass, seemed to furnish a natural conclusion to our journey. We were therefore unable to ascertain whether we should or should not have found a passage beyond the wall of rocks: we perceived then no better resource than to turn to the left towards Cape Disappointment, where the luxurious plantations of sugar-canæ we had discovered on our first visit, now again drew our attention. That we might not return empty-handed to Falcon's Stream, and might deserve forgiveness for so long an absence, we each took the pains to cut a large bundle of the canæ, which we threw across the ass's back, not forgetting the ceremony of reserving one apiece to refresh ourselves with along the road. We soon arrived on the well-known shore of the sea, which at length afforded us an open and shorter path; we next, and not long after, reached the wood of gourds, where we found our sledge loaded as we had left it the night before: we took the sugar-canæ from the ass, and fastened them to the sledge, and then we harnessed

the ass, and the patient animal began to draw towards home.

We arrived at Falcon's Stream without any further adventure, and rather early in the evening. We received at first some kind reproofs; we were next questioned, and lastly thanked, as we displayed our various treasures, but particularly the sugar-canés: each of the boys seized one and began to suck it, as did their mother also. Nothing could be more amusing than to hear Fritz relate, with unaffected interest, the recent discoveries we had made, and imitate the gestures of the heath-cock as he held it up for them to examine:—the whole company continued to shout with laughter for many minutes. Then came the history of the colony of birds and their singular habitation, and of the green parrot, all of which was listened to with the delight excited by a fairy tale. Fritz showed them the handsome red parrot dead, also the great blue jay, both of which they did not cease to admire; but when Fritz took out of his waistcoat pocket the little parrot all alive, there was no bounds to their ecstasy: they jumped about like mad things, and I was obliged to interpose my authority to prevent their tearing him to pieces, in the struggle who should have him first. Francis asked his eldest brother if he had not already taught him some words in their way home? I in-

tended the office of preceptor for you, said Fritz, who are such a little prate-apace that the parrot would not be long in learning. Francis nearly devoured the little animal with kisses, repeating a thousand times *pretty little parrot!* At length the bird was fastened by the leg to one of the roots of the trees, till a cage could be made for him; and was fed with acorns, which he appeared exceedingly to relish. We next gave an account of the excellent dinner we had made on the larvæ found in the sago-meal, which excited the envy of all but my wife, who was never partial to new kinds of food. I therefore promised her for her share of so many dainties, some real mushrooms which grew spontaneously from the powder of the sago. She was delighted with the prospect of the candles I assured her I was now able to furnish, and also of the boots and shoes. Fritz took a bit of the rubber from his pocket and drew it to its full length, and then let it suddenly go, to the great amusement of little Francis.

Soon after night fall, being much fatigued, and after partaking of a hearty supper, we all mounted the ladder; and having carefully drawn it up, we fell exhausted, into sound and peaceful slumbers.

CHAPTER XXIV.

Useful occupations and labours.—Embellishments; a painful but natural sentiment.

ON the following day, neither my wife nor the boys left me a moment's tranquillity till I had put my manufactory of candles in some forwardness: I therefore set myself to recollect all I had read on the subject. I soon perceived that I should be at a loss for a little suet or mutton fat to mix with the wax I had procured from the berries, for making the light burn clearer; but as I had neither of these articles, I was compelled to proceed without them. I put as many berries into a vessel as it would contain, and set it on a moderate fire; my wife in the mean time employed herself in making some wicks with the threads of sail-cloth. When we saw an oily matter of a pleasing smell and light green colour, rise to the top of the liquid the berries had yielded, we carefully skimmed it off and put it into a separate vessel, taking care to keep it warm. We continued this process till the berries were exhausted and had produced a considerable quantity of wax; we next dipped the wicks one by one into it,

while it remained liquid, and then hung them on the bushes to harden: in a short time, we dipped them again, and continued repeating the operation, till the candles were increased to the proper size, and they were then put in a place and kept, till sufficiently hardened for use. We, however, were all eager to judge of our success that very evening, by burning one of the candles, with which we were all well satisfied. In consequence of this new treasure, we should now be able to sit up later, and consequently spend less of our time in sleep; but independently of this advantage, the mere sight of a candle; which for so long a time we had been deprived of, caused ecstasies of joy to all.

Our success in this last enterprise, encouraged us to think of another, the idea of which had long been cherished by our kind steward of provisions: it was, to make fresh butter of the cream we every day skimmed from the milk, and which was frequently, to her great vexation, spoiled, and given to the animals for want of such a process. The utensil we stood in need of, was a churn, to turn the cream in. Having earnestly applied my thoughts, as to the most effectual manner of conquering the difficulty, I suddenly recollect what I had read in a book of travels, of the method used by the Hottentots for making butter; but in adopting it, I deter-

mined to introduce one feature of proceeding, for which, apparently, they have not a partiality; and this was, the utmost attention to cleanliness. Instead of a sheep-skin sewed together at its extremities, I emptied a large gourd of its natural contents, and filled it again with cream, and stopped it quite close with the piece I had cut from the top. I placed my vase of cream on a piece of coarse linen cloth with four corners, which last I tied to four stakes; I placed one boy midway between each stake, and directed them to shake the linen briskly, but with a steady measure, for a certain time. This exercise, which seemed like children's play, pleased them mightily, and they called it rocking the cradle. They performed their office singing and laughing all the time, and in an hour, on taking off the cover, we had the satisfaction of seeing some excellent butter. We heartily congratulated each other, and praised the workmen, who by their constancy of labour, had thus produced one of the first conveniences in the list of articles for food.

The employments we had thus been engaged in, were little different from play; but now a question occurred of one that would require our most serious attention:—it was the constructing a cart, in all its forms, for the better conveyance of our effects from place to place, instead of the sledge which

caused us so much fatigue to load and draw. Many reasons induced me to confine my attempt in the first instance to a two-wheel cart, and to observe the result before I ventured on one with four wheels.

I will not fatigue the reader with the detail of my undertaking: I tried earnestly and long to accomplish my machine; but it did not entirely succeed to my wishes, and I wasted in the attempt both time and timber. I however produced what from courtesy we called a cart; but I would not advise my readers to take it for a model, though, to say the truth, to us it answered the purpose for which it was designed.

While I was thus laboriously engaged, the boys and their mother were no less busy in matters of use or convenience; and I now and then left my cart to assist them with my advice, though, to do them justice, I must say, they seldom stood in need of it. They undertook to transplant the greatest part of the European fruit-trees, to place them where they would be in a better situation for growth, according to the properties of each. They planted vine shoots round the roots of the magnificent tree we inhabited, and round the trunks of some other kinds of trees which grew near; and we watched them in the fond anticipation that they would in time ascend to a height capable of being formed into a

sort of trellis, and help to cool us by their shade. In the climate we inhabited, the vine requires the protection of the larger trees against the scorching rays of the sun. Lastly, we planted two parallel lines of saplings, consisting of chesnut, cherry, and the common nut-trees, to form an avenue from Family Bridge to Falcon's Stream, which would hereafter afford us a cool shade in our walks to Tent House. This last undertaking was not to be effected without a degree of labour and fatigue the most discouraging :—the ground was to be cleared of every thing it had produced, and a certain breadth covered with sand, left higher in the middle than on the sides, for the sake of being always dry. The boys fetched the sand from the sea-side in their wheel-barrows, and I also nailed together a few pieces of wood, in the form of a tub, which could be harnessed to the ass to ease in some measure their fatigue.

Our next concern was to introduce, if possible, some shade and other improvements on the barren site of Tent House, and to render our occasional abode or visits there more secure. We began by planting in a quincunx all those sorts of trees that thrive best in the sun, such as lemon, pistachio, almond, mulberry, and lime-trees; lastly, some of a kind of orange-tree which attains to a prodi-

gious size, and bears a fruit as large as the head of a child ¹², and weighs not less than twelve or fourteen pounds. The commoner sorts of nut-trees we placed along the shore in the most favourable situations. The better to conceal and fortify our tent, which inclosed all our stores, we formed on the accessible side, a hedge of wild orange and lemon-trees, which produce an abundant prickly foliage; and to add to the agreeableness of their appearance, we introduced here and there the pomegranate; nor did I omit to make a little arbour of the guava shrub, which is easily raised from slips, and bears a small fruit rather pleasant to the taste. We also took care to introduce at proper places a certain number of the largest sorts of trees, which in time would serve the double purpose of shading annual plants, and, with benches placed under them, of a kind of private cabinet. Should any accident or alarm compel us to retire to the fortress of Tent-House, a thing of the first importance would be to find there sufficient food for our cattle. For the greater security, I formed a plantation of the thorny fig-tree, of sufficient breadth to occupy the space between our fortress and the river, thus rendering it difficult for an enemy to approach.

The curving form of the river having left some partial elevations of the soil within the

inclosure, I found means to work them into slopes and angles so as to serve as bastions to our two cannon from the pinnace and our other fire-arms, should we ever be attacked by savages. When this was all complete, we perceived that one thing more was wanting, which was to make such alterations in Family Bridge as would enable us to use it as a drawbridge or to take it away entirely, this being the only point at which the passage of the river could be easily effected. But as we could not do all at once, we contented ourselves, for present safety, with taking away the first planks of the bridge at each end every time we passed it. My concluding labour was to plant some cedars along the usual landing-places, to which we might fasten our vessels.

We employed six whole weeks in effecting what for the present it was possible to effect, of these laborious arrangements; but the continual exercise of mind and body they imposed, visibly contributed to the physical and moral health of the boys, and to the support of cheerfulness and serenity in ourselves. The more we embellished our abode by the work of our own hands, the more it became dear to our hearts. The constant and strict observance of the sabbath-day afforded such an interval of rest, as could not fail to restore our strength; and

inspire us with the desire of new exertions. The sentiment of gratitude which filled our minds towards the Supreme Being, who had saved us from destruction and supplied us with all things needful, demanded utterance, and on Sundays we might allow ourselves the indulgence of pouring out our hearts in thankfulness. Thus our religious exercises, succeeded by gymnastic recreations, and these again by pleasing rambles near Falcon's Stream, during which I did not fail to inculcate some moral truth, served to increase at once, our usefulness and our happiness. It was deserving of remark, that though the boys had been employed in severe labour through the week, yet they were ever ready to encounter the climbing of trees, running races, swimming, shooting with the bow and arrow, when Sunday came; a proof that it is not so much inaction which renews the strength, as a change of occupations.

But the repetition of these exercises wore out our clothes so fast, that another trip to the vessel was absolutely necessary. We had nearly exhausted the stock we had already brought away; we were now absolutely in rags, and we feared we saw the time when we should be compelled to renounce the European modes of dress. I had also another reason; the cart I had just completed, and with which at first I was quite enchanted on

further acquaintance disclosed a defect which it was scarcely possible to endure ; it was a violent creaking of the wheels at every turn ; and in addition the wheels moved so imperfectly round the axle-tree, that the united strength of the ass and the cow could scarcely drag the machine along. It was in vain that, in spite of my wife's reproofs, I applied a little butter now and then ; in an hour or two the butter was dried, and the wheels remained the same.

These two circumstances compelled us then once more to have recourse to the vessel, which heaven and the waves had still preserved. We knew there remained on board five or six chests containing apparel, and we suspected there were also some tubs of pitch and grease for wheels in her hold, which we should thus obtain. To these motives were added, that of an earnest desire to take another look at her, and, if practicable, to bring away a few pieces of cannon which might be fixed on the new bastions at Tent House, and thus we should be prepared for the worst.

The first fine day I assembled my three eldest sons, and put my design into execution. We reached the wreck without any striking adventure, and found her still fixed between the rocks, but somewhat more shattered than when we had last seen her. We

did not lose a moment in searching for the tubs of pitch, which, with the help of the pulley, we soon conveyed into the pinnace; we next secured the chests of clothes, and whatever remained of ammunition stores; powder, shot, and even such pieces of cannon as we could remove, while those that were too heavy, we stripped of their wheels, which might be extremely useful.

But to effect our purpose, it was necessary to spend several days in visits to the vessel, returning constantly in the evening, enriched with every thing of a portable nature which the wreck contained; doors, windows, locks, bolts, nothing escaped our grasp: so that the ship was now entirely emptied, with the exception of the heavy cannon and three or four immense copper caldrons, which were too heavy to be got into the boat. We by degrees contrived to tie these heavy articles to two or three empty casks well pitched, which would effectually sustain themselves and the cannon above water. When these measures were taken, I came to the resolution of blowing up the wreck by a process similar to that with which I had so well succeeded with the pinnace. I directed my views to that part of the vessel which had been entirely stripped of every thing; I supposed that the wind and tide would convey the beams and timbers ashore, and thus with little pains we should

be possessed of a sufficient quantity of materials for erecting a building at some future time.

We accordingly prepared a cask of gunpowder, which we left on board for the purpose: we rolled it to the place most favourable for our views: we made a small opening in its side, and at the moment of quitting the vessel, we inserted a piece of match-wood which we lighted at the last moment, as before. We then sailed with all possible expedition for Safety Bay, where we arrived in a short time. We could not, however, withdraw our thoughts from the wreck and from the expected explosion for a single moment. I had cut the match a sufficient length for us to hope that she would not go to pieces before dark. I proposed to my wife to have our supper carried to a little point of land from whence we had a view of her, and here we waited for the moment of her destruction with lively impatience.

About the time of night-fall, a majestic rolling sound like thunder, accompanied by a column of fire and smoke, announced that the ship, so awfully concerned with our peculiar destiny, which had brought us to our present abode in a desert, and furnished us there with such vast supplies for general comfort, was that instant annihilated, and withdrawn for ever from the face of man!—

At this moment, love for the country that gave us birth, that most powerful sentiment of the human heart, sunk with a new force into ours. The ship had disappeared for ever! Could we then form a hope ever to behold that country more! We had made a sort of jubilee of witnessing the spectacle; the boys had clapped their hands and skipped about in joyful expectation; but the noise was heard;—the smoke and sparks were seen;—while the sudden change which took place in our minds could be compared only to the rapidity of these effects of our concerted scheme against the vessel. We all observed a mournful silence, and all rose, as it were, by an impulse of mutual condemnation, and with our heads sinking on our bosoms, and our eyes cast upon the ground, we took the road to Tent House.

My wife was the only person who was sensible of motives for consolation in the distressing scene which had been passing; she was now relieved from all the cruel fears for our safety in our visits to a shattered wreck, that was liable to fall to pieces during the time we were on board. From this moment she conceived a stronger partiality for our island; and the modes of life we had adopted. A night's repose had in some measure relieved the melancholy of the preceding evening, and I went rather early in the morning with the

boys, to make further observations as to the effects of this remarkable event. We perceived in the water, and along the shore, abundant vestiges of the departed wreck, and among the rest, at a certain distance, the empty casks, caldrons, and cannon, all tied together, and floating in a large mass upon the water. We jumped instantly into the pinnace, with the tub-boat fastened to it, and made a way towards them - through the numberless pieces of timber, &c., that intervened, and in a little time reached the object of our search, which from its great weight moved slowly upon the waves. Fritz with his accustomed readiness flung some rope round two four-pounders, and contrived to fasten them to our barge, after which he secured also an enormous quantity of poles, laths, and other useful articles. With this rich booty we returned to land.

We performed three more trips for the purpose of bringing away more cannon, caldrons, fragments of masts, &c., all of which we deposited for present convenience in Safety Bay: and now began our most fatiguing operations, the removing such numerous and heavy stores from the boats to Tent House. We separated the cannon and the caldrons from the tub-raft, and from each other, and left them in a place which was ac-

cessible for the sledge and the beasts of burden. With the help of the crow we succeeded in getting the caldrons upon the sledge, and in replacing the four wheels we had before taken from the cannon ; and now found it easy to make the cow and the ass draw them. We in the same manner conveyed away all the pieces of wood we wished to preserve dry, and what stores remained, we tied with cords to stakes along the shore, to protect them from the tide.

The largest of the boilers or copper caldrons, which had been intended as principal utensils for a proposed manufactory of sugar, we now found of the most essential use. We brought out all our barrels of gunpowder, and placed them on their ends in three separate groups, at a short distance from our tent ; we dug a little ditch round the whole, to draw off the moisture from the ground, and then put one of the caldrons turned upside down upon each, which completely answered the purpose of an out-house. The cannon were covered with sail-cloth, and upon this we laid heavy branches of trees ; the larger casks of gunpowder we prudently removed under a projecting piece of rock, where, should they even blow up, no mischief could arise to the inhabitants of Tent House : these we covered with planks, till we should have leisure for

executing the plan of an ammunition store-house, about which we had all become extremely earnest.

My wife, in taking a survey of these our labours, made the agreeable discovery that two of our ducks and one of the geese had been brooding under a large bush, and at the time were conducting their little families to the water. The news produced general rejoicings; Fritz and Ernest looked forward to some luxurious Sunday-dinners, and Jack and Francis wondered what the young birds could think, when they first saw any human creatures! We in a short time found means to tame them, by throwing them occasionally some crumbs of manioc. This last employment, together with the gambols of the little creatures, so forcibly carried our thoughts to Falcon's Stream, that we all conceived the ardent desire of returning to the society of the numerous old friends we had left there. One sighed for his monkey, another for his flamingo; Francis for his parrot, and his mother for her poultry-yard, her various housewifery accommodations, and her comfortable bed. We therefore fixed the next day for our departure, and set about the necessary preparations.

CHAPTER XXV.

A new excursion.—Palm-tree wine.

ON entering our new plantation of fruit-trees forming the avenue to Falcon's Stream, we observed that they had not a vigorous appearance, and that they inclined to curve a little in the stalk: we therefore immediately resolved to support them with sticks, and I proposed a walk to the vicinity of Cape Disappointment, for the purpose of cutting some bamboos. I had no sooner pronounced the words, than the three eldest boys and their mother exclaimed at once that they would accompany me. Their curiosity had been excited by the accounts Fritz and I had given of the variety of amusing objects we had met with in our visit to the spot: each found a sound and special reason why he must not fail to be of the party:—one of the hens was observed to be brooding, and some of the eggs of the heath-fowl were to be fetched and laid under her;—our provision of candles was nearly exhausted, and a new stock of berries must therefore be procured, for my wife now repaired our clothes by candle-light, while I employed myself in

composing a journal of the events of every day :—Then, the sow had again deserted us, and nothing could be so probable as that we should find her in the acorn wood :—Jack would fain gather some guavas for himself, and Francis must needs see the sugar-canæs he sucked with so keen a relish In short, all would visit this land of Canaan.

We accordingly fixed the following morning, and set out in full procession. For myself, I had a great desire to explore with more attention this part of our island, and to reap some more substantial advantages from its produce. I therefore made some preparations for sleeping, should we find the day too short for all we might have to accomplish: I took the cart instead of the sledge, having fixed some planks across it for Francis and his mother to sit upon when they should be tired; I was careful to be provided with the different implements we might want, some rope machinery I had contrived for rendering the climbing of trees more easy, since we could not always expect to meet with a crab who should obligingly give us his assistance; and lastly, some provisions, consisting of a piece of the salted tortoise, some water in a gourd-flask, and one bottle of wine from the captain's store. When all was placed in the cart, I for this time harnessed to it both the ass and the cow, as I expected the load

would be increased on our return; and we set out, taking the road of the potatoe and manioc plantations. Our first halt was at the tree of the colony of birds; close upon the same spot were also the trees whose berries produced the wax for candles, and intermixed with these some of the guava kind. On this second occasion of seeing the birds, I recollect to what species they belonged, which by naturalists is named *Loxia gregaria* (Sociable Grossbeak).

It was not without much difficulty that we conducted the cart through the thick entangled bushes, the most intricate of which I every where cut down, and we helped to push it along with all our strength. We succeeded tolerably well at last; and that the poor animals might have time to rest, we determined to pass several hours in this place which furnished such a variety of agreeable and useful objects. We began by gathering a bag full of the guavas; and after regaling ourselves plentifully upon them, we put the remainder into the cart. We next examined anew, and with close attention, the interesting structure of the nest inhabited by the colony of birds, and concluded, contrary to the opinion I had formerly entertained, that the little green parrot was an invader who had seized upon an empty place, and fixed himself in it; for numerous flocks of the

brown-coloured birds now passed in and out, rested upon the bushes which produced the wax, and devoured large quantities of the berries, which explained the reason of their building their singularly-contrived abode in this particular spot. We claimed the same privilege as the birds, and had soon filled another bag with the berries we found means to beat down from the bushes. Seeing them so greedily consumed by those little animals, the boys desired to follow their example, and accordingly tasted them, but found them too insipid for their palate.

We had brought the monkey with us to search out the nests of the heath-fowl, that we might seize upon the eggs; but we postponed the setting him on this employment till we should again reach the place on our way back, for fear of breaking the eggs in carrying. We continued our way, and soon arrived at the caoutchouc, or gum-elastic trees: I thought we could not do better than to make a halt here, and endeavour to collect a sufficient quantity of the sap, to make the different kinds of utensils, and the impenetrable boots and shoes, as I had before proposed. It was with this design that I had taken care to bring with me several of the most capacious of the gourd rinds. I made deep incisions in the trunks, and fixed some large leaves of trees partly doubled to-

gether lengthways, to the place, to serve as a sort of channel to conduct the sap to the vessels I had kept in readiness to receive it. We had not long begun this process before we perceived the sap begin to run out as white as milk, and in large drops, so that we were not without hopes by the time of our return to find the vessels full, and thus to have obtained a sufficient quantity of the ingredient for a first experiment.

We left the sap running, and pursued our way, which led us to the wood of cocoa-trees; from thence we passed to the left, and stopped half way between the bamboos and the sugar canes, intending to furnish ourselves with a provision of each. We aimed our course so judiciously, that on clearing the skirts of the wood we found ourselves in an open plain, with the sugar-cane plantations on our left, and on our right those of bamboo interspersed with various kinds of palm-trees, and in front the magnificent bay formed by Cape Disappointment, which stretched far out into the sea.

The prospect that now presented itself to our view was of such exquisite beauty, that we determined to choose it for our resting-place, and to make it the central point of every excursion we should in future make: we were even more than half disposed to desert our pretty Falcon's Stream, and trans-

port our possessions hither: a moment's reflection, however, betrayed the folly of quitting the thousand comforts we had there with almost incredible industry assembled: and we dismissed the thought with promising ourselves to include this ravishing spot ever more in our projects for excursions. We disengaged the animals, that they might graze and refresh themselves under the shade of the palm-trees, and sat down to enjoy our own repast, and to converse on the beauty of the scene.

Our next proceeding was to divide amongst us the different occupations which were the objects of our walk. Some scampered away to the right to cut bamboos; others to the left, to secure the sugar-canies, of both which a large bundle was collected, tied together, and put into the cart. The bodily exertions made by the boys again excited their desire to eat; they sucked some of the canes, but their hunger was not appeased. Their mother, however, refused to let them have the remainder of the provisions, and they therefore cast a longing eye to the tops of the trees, where they saw a great number of cocoa-nuts suspended. After a short deliberation, it was determined that two of them should venture on climbing to the top, a height of from sixty to eighty feet, and with the hatchet which

would be fastened to his waist, should beat them down. Fritz and Jack had no hesitation ; they selected the trees which had most fruit for their attempt, and with my assistance they proceeded a considerable way; but when left to themselves, their legs and arms were too short to embrace the trunk of the tree, and having no place of rest for either, they scampered down again much quicker than they had ascended, chagrined and out of countenance. It was now my part to interfere: I wished, said I, to let you try for yourselves first ; but though it may be well to be possessed of personal courage, yet at your age, my boys, it is advisable to distrust your own suggestions and to ask advice from persons of experience : had you applied for mine, I should have told you how impossible it would be for you to mount such a tree as this without assistance. It is true, very young sailor-boys mount to the heads of masts, which are nearly as high ; but then the mast is of small circumference, and the boys have, besides, the aid of ropes. I have something here which may answer the same purpose ; —here are some pieces of prepared shagreen, which must be tied round your legs ; then with this cord I shall fasten you by the body to the trunk of the tree, but so loosely that it will move up and down when you do ;

by sitting occasionally on this cord, you will be enabled to rest when necessary, and so push on by little and little. This manner of climbing trees is practised by savages and by negro slaves with success. At first you will make but slow progress, but after two or three experiments you will find no further difficulty.

The boys had listened with entire attention: excited by the description I had made, they eagerly demanded to be equipped for the experiment, and their success exceeded our expectation; they with tolerable ease reached the top of the tree, where the thick tufted foliage furnished a commodious seat, and from whence they sent forth exulting salutations. They now took their hatchets and set to work, when presently a shower of cocoa-nuts descended, from which the persons below had barely time to escape by running to a distance. The monkey having observed what was going on, took the fancy of imitating his young masters, and springing from the ground into one of the trees, he with his teeth and his paws sent down as many nuts as the hatchet: he then came down with equal swiftness, and seating himself on the ground began to crack one of the nuts, making all the time such strange grimaces as to occasion us all much merriment. The two boys had descended with

more caution than the monkey, and with perfect safety: they received our compliments on the skill and address they had evinced in so promptly making themselves masters of so valuable an art.

Ernest was the only person who took no part in this animated scene: his brothers began to banter him a little on the old subject of his indolence; they approached him gravely, and offered him some cocoa-nut, *to refresh him after so much fatigue*; he made no reply, and pushed the offering aside. He then rose from his seat, and began to examine the trees one by one with deep attention; he requested me to saw off the top of a cocoa-nut for him, which he emptied, and fastened round it cross-ways a string with a loop to hang it to the button of his waistcoat. Not one of us could imagine what he was going to do; he placed a small hatchet in his girdle, and then advancing a few paces out of the group we formed, he in a graceful manner pronounced the following little address:

“ I am sensible, my dear parents, that in our republic, or rather in our kingdom, (for our father is to us as a beloved sovereign, and our mother as a much cherished queen,) I am I say sensible, that here, as in Europe, he who has sufficient talent to raise himself above the rest, is held in high consideration

and esteem. For my own part, I must confess I had more pleasure in remaining in tranquillity without endeavours to obtain distinction. I have but little ambition, and am fond of quiet, and therefore the greater will be my desert, if I, like the rest, resolve to contribute to the general good of this our country, by executing, as the other subjects have done, the task of climbing trees ; well satisfied if, like them, I should obtain the applauses of my king and of my fellow-citizens !—To the tree then, since climbing is the question," said he, saluting us with his hand as he sprang away to a high palm-tree of the cabbage species¹³.

I looked with extreme curiosity ; but when I saw him courageously grasp the trunk with his legs and arms, and proceed to climb without assistance, I approached the tree and offered him the shagreen and the cord ; he accepted the first, but refused the cord. I am naturally somewhat awkward, observed he, and to have to draw a cord after me would only add to my difficulty ; besides, I think I have no occasion for it. In fact, he employed so much earnest desire in the undertaking, and exerted his limbs with so much spirit, that I was astonished at the rapidity of his ascent, and conceived at every remove the most terrible alarm, since the further from the ground, the more danger

would attend him, should any slip or other accident occasion him to fall. I kept my station near the foot of the tree, continually encouraging him by calling out: Bravo, bravo, boy Ernest, though last in attempt, yet it is you who have shown the greatest courage, for you have not, like your brothers, had assistance from the cord. Fritz and Jack, who were spectators also, now, instead of seeming humbled by my repeated commendation of Ernest, to my great surprise, were observed whispering each other with an air of self-satisfaction; I could not for my own part conceive what could be the subject of their seeming exultation, but I soon learnt the truth. When Ernest now showed himself at the very top of the tree, Fritz and Jack burst into an immoderate fit of laughter:—Pains enough for nothing, master Ernest, bawled they as loud as they could: in your sublime wisdom, master Ernest, you have chosen a tree which has no fruit upon it. Not a single cocoa-nut will you bring down, your most devoted fellow-subjects can truly assure you!

Not a cocoa-nut, certainly, replied Ernest in his loudest voice; but, brothers, you shall receive a crown instead, and at the same instant he with his hatchet cut off the tufted summit of the palm-tree, and a large mass of tender leaves fell at our feet.

Mischievous boy ! cried his mother : disappointed of his cocoa-nuts, see if he has not cut off the head of this magnificent palm-tree, and it will perish in consequence ! Ah ! Ernest, what do you not deserve for thus giving way to anger !

I am happy, mother, to be able to correct your mistake, cried Ernest from his stately column, where he stood erect, and looked exactly like a statue. What I have done was not from anger, but from a desire to procure you one of the finest kinds of food this country affords ; the tree is the cabbage palm-tree, and believe me you will find it a more valuable acquisition than even our highly prized cocoa-nuts !—A cabbage ! exclaimed Fritz : Ah, ah ! Master Ernest, so you would make us believe that cabbages grow on palm-trees, and that we are in a land of wonders !

In a land of wonders, my son, we can never fail to be, in whatever place we may abide, for the whole scheme of nature is a perpetual tissue of wonders proceeding from the hand of a beneficent Creator ; and those we now behold appear to us extraordinary, only because we view them for the first time. Examine this production, to which the name of palm-cabbage has been given by naturalists ; it has not the shape of our European cabbage ; but, as Ernest tells you,

it is a most delicious and refreshing food : he has also had the merit of distinguishing this tree from others : and let me seize the present occasion, young ones, to reprove you for the taunting spirit in which you viewed your brother's proceedings, who, though less enterprising and less alert than you, so far surpasses any one of you in observation and reflection. To him we are indebted for the most useful of the discoveries which have been made—the potatoes and the manioc : if, instead of envying each other, you were to unite your various endowments, what happiness and what success might be the result ! Ernest would think for you, you would execute for him ; thus, all would share in the advantages which would result from this spirit of concord, so necessary among mankind, but particularly among brothers. Let me also recommend to you to accustom yourselves to suspend your judgement on the actions of another, till those actions are complete and you are quite sure both of their object and effect. Even you, well-beloved of my heart, were not on this occasion free from blame towards your boy ! Try then to make him such reparation as your kind maternal heart shall dictate !

Most willingly, cried she, her eyes filling with tears of tenderness ; and she looked up to invite him to come down : mine and the

boys' followed in the same direction ; when we beheld Ernest in a fixed erect position in the very centre of the palm-tree, which he had stripped of its crown, as motionless as if he had become a cabbage. The whole effect of this spectacle was irresistibly ludicrous ; and accordingly the boys, in spite of the lecture I had that moment concluded, burst into an immoderate fit of laughter.

I now called out to Ernest : Do you mean, said I, to stay all night in your tree, or are you afraid to trust yourself with coming down ?

Far from it, father, answered he ; but I am engaged in preparing you here some good sauce for the cabbage, and the operation takes a longer time than I imagined : but have a little patience, and I will bring down something for you to drink to my health.

What can he mean ? asked little Francis ; I dare say he has found a fountain in the tree ; do you know, papa, I have been thinking that this must be an enchanted forest, like those I have read about in my little books ; perhaps some of those trees are all the time princes and princesses :—do you not think it very likely, brother Fritz ? said the young innocent with so real and fearful a persuasion, that we all laughed heartily as we answered his question. His mother took him on her knee and explained to him the

nature of a fairy-tale, while the scene for my own part strengthened me in the opinion that children should be told nothing but the truth.

By this time Ernest had finished his work, and was descending cautiously from the tree. When he reached the ground, he released the cocoa-shell from his button, held it delicately in one hand, while with the other he drew from his pocket a small bottle, and pulling out the cork he emptied the contents into the shell, and presented it to me, saying: Most gracious sovereign, permit your devoted cup-bearer to present you with a specimen of a new and choice beverage he has been so fortunate as to procure for you: may it be pleasing to your royal taste: it is called palmist-wine, and your faithful slave waits but your commands to obtain a larger supply!

My wife and the other boys looked on in astonishment. I was myself less surprised, having read accounts of this production in different books. I was, however, much gratified to owe the acquisition to the study and reflection of my young philosopher, as I now called Ernest. It is excellent, my boy, said I, and we shall unite in drinking it to your health, with sensations of gratitude and affection. This was accordingly done.

I then made some inquiries of Ernest, as

to his previous knowledge of the tree and its properties ; and he answered, that if he had been quite sure of these being the kind producing cabbage, he should sooner have ascended. I knew, continued he, that there was a sort of palm which bore a cabbage at the top ; and while my brothers were getting up for the cocoa-nuts, I was looking about in hopes to find it, and presently I thought that the tree which had no cocoa-nuts was most likely to be the sort ; and you see I was lucky in my guess. He then related his expectation of finding some of our famous palm-wine also. When I had cut off the cabbage, said he, a quantity of juice issued from the place, which I tasted and found delicious : you know the rest, father, added he ; and I have only to regret that I had not a larger bottle to receive it ; but now that we know the means, we can obtain the liquor when we please.

A small quantity at a time, observed I, will always be best ; for the juice, though so like to Champaign in flavour, and which would perhaps affect our heads as soon if we were to use it freely, would by to-morrow, like the cocoa-milk, be quite sour : as there are abundance of the trees, we can, as you say, procure the liquor at pleasure, only taking care to be moderate ; for it is affirmed by writers on natural history, that if the cab-

bage at the top is cut off, the tree dies, and we should therefore in time destroy the species. There are other sorts of palm-trees besides those we have noticed ; one in particular, which yields a kind of oil which burns whatever it is applied to ; we shall perhaps meet with it. In the mean time, let us render thanks to Providence for the benefits he has bestowed.

It was now past noon ; and as we had determined to pass the night in this enchanting spot, we began to think of forming some large branches of trees into a sort of hut, as is practised by the hunters in America, to shelter us from the dew and the coolness of the air, for we had dismissed our fears of the approach of wild-beasts, not having in so long a time been visited by any. I accordingly set to work ; I had brought a piece of sail-cloth with me from Falcon's Stream, and I drove some stakes into the ground, and covered them with it, filling the opening in the front with some branches I had cut for the purpose. While we were engaged in our work, which was nearly completed, we were suddenly roused by the loud braying of the ass, which we had left to graze at a distance but a short time before. As we approached nearer to the place, we saw him throwing his head in the air, and kicking and prancing about in a most extraordinary manner ; and while we were thinking what could be the matter, he

set off on a full gallop, leaving us in a state of astonishment at all we saw. Unfortunately, Turk and Porto, whom we sent after him, took the fancy of entering the plantation of the sugar-canæs, while the ass had preferred the direction of the bamboos on the right. We began to fear the approach of some wild beast might have frightened the creature, and to think of assembling our fire-arms. In a little time the dogs returned, and showed no signs, by scenting the ground or otherwise, of any pursuit. I made a turn round the hut to see that all was well, and then sallied forth with Fritz and the two dogs in the direction the ass had taken, hoping the latter might be enabled to trace him by the scent; but the familiar creatures could not be made to understand our meaning; they lived habitually with the ass, and had no notion of the new reason for following him; so that they did no more than run from place to place for their amusement; and as night was coming on, I prudently gave up the pursuit and returned to my companions.

Fatigued, and vexed with the loss of the ass, which was so eminently useful to us, I entered the hut, which I found complete and provided with the necessary branches strewed on the ground for sleeping, and with some reeds for making a fire, which the freshness of the evening air rendered agree-

able to all: it served us also for cooking our supper; and after it had been partaken by us all, we were glad to lie down upon the branches and enjoy the blessing of sleep. When all was safe, I watched and replenished the fire till midnight, rather from habit than the fear of wild beasts, and then took possession of the little corner assigned me near my slumbering companions.

CHAPTER XXVI.

A new country discovered.—The troop of buffalos ; a precious acquisition.

THE following morning found us all in good health, and thankful for the Divine protection we had enjoyed. We breakfasted on some milk from the cow, some boiled potatoes, and a small portion of Dutch cheese, and formed during our meal the plan of the business for the day: we had in vain hoped that night and our bright fire would bring back the fugitive; we had therefore no resource but to depend upon our own exertions for recovering him. It was accordingly decided that one of the boys and myself, attended by the two dogs, should seek him in every direction through the bamboo plantation; and if we should not succeed in finding him, I was to return to the hut, where I knew my wife and the other boys would have been employed in cutting sugar-canies and collecting a provision of the different articles we had met with, preparatory to our return the following day to Falcon's Stream. As I was to take both the dogs, it seemed but reasonable that I should leave the two eldest boys

to protect little Francis and his mother, and to take for my own escort the agile Jack, who was almost beside himself with joy at this determination.

We took then our hatchets, our fire-arms, a little saw for the cocoa-nuts we might happen to find, and began our course with the first dawn of the morning. We soon reached the bamboo plantation, which we entered, preceded by the dogs, and found means, though not without difficulty, to force ourselves along its intricate entanglements. After the most exhausting fatigue, and when we were on the point of relinquishing all further hope, we discovered the print of the ass's hoofs on the soil, which inspired us with new ardour in the pursuit. After spending a whole hour in further endeavours, we at length, on reaching the skirts of the plantation, perceived the sea in the distance, and soon after found ourselves in an open space which bounded the great bay. A considerable river flowed into the bay at this place, and we perceived that the ridge of rocks which we had invariably observed to the right, extended to the shore, terminating in a perpendicular precipice, leaving only a narrow passage between the rocks and the river, which during every flux of the tide must necessarily be under water, but which at that moment was dry and passable. The proba-

bility that the ass would prefer passing by this narrow way, to the hazard of the water, determined us to follow in the same path: we had also some curiosity to ascertain what might be found on the other side of the rocks, for as yet we were ignorant whether they formed a boundary to our island, or divided it into two portions; whether we should see there, land, or water. We continued to advance, and at length reached a stream which issued foaming from a large mass of rock and fell in a cascade into the river; the bed of this stream was so deep, and its course so rapid, that we were a long time finding a part where it might be most practicable for us to cross. When we had got to the other side, we found the soil again sandy and mixed with a fertile kind of earth: in this place we no longer saw naked rock; and here we again discovered the print of the ass's hoofs.

By observing with attention, we beheld with astonishment that there were the prints of the feet of other animals also, that they were somewhat different from those of the ass, and much larger. Our curiosity was so strongly excited by this appearance, that we resolved to follow the traces; and they conducted us to a plain at a great distance, which presented to our wondering eyes the exhilarating image of a terrestrial paradise. We

ascended a hill which partly concealed from our view this delicious scene, and then with the assistance of the glass we looked down upon a range of country exhibiting every rural beauty that the mind could conceive, and where a profound tranquillity had seemed to take up its abode. To our right appeared the majestic wall of rocks which divided the island, some of which appeared to touch the heavens, others seemed to imprint the clouds with wild fantastic forms, while mists broken into pieces partially concealed their tops. To the left, a chain of gently rising hills, the long green verdure of which was tinged with blue, stretched as far as the eye could discern, and were interspersed at agreeable distances with little woods of palm-trees of every kind. The river we had crossed flowed in a serpentine course through this exquisite valley, presenting the idea of a broad floating silver ribbon, while its banks were adorned with reeds and various aquatic plants. I could with difficulty take my eyes from this enchanting spectacle, and I seated myself on the ground to contemplate and enjoy it at my leisure. Neither on the plain nor on the hills was there the smallest trace of the abode of man, or of any kind of cultivation; it was every where a virgin soil in all its original purity; nothing endowed with life appeared to view, excepting a few birds

which flew fearlessly around us, and a quantity of brilliantly coloured butterflies, which the eye frequently confounded with the different sorts of unknown flowers, which here and there diversified the surface of the soil.

By straining our eyes, however, as far as we could see, we thought we perceived at a great distance some specks upon the land, that seemed to be in motion. We hastened towards the spot; and as we drew nearer, to our inexpressible surprise discovered a group of animals, which in the assemblage presented something like the outline of a troop of horses or of cows; I observed them sometimes run up to each other, and then suddenly stoop to graze. Though we had not lately met with further traces of the ass, I was not entirely without hope of finding him among this group of animals. We accordingly drew near by a path we found in a plantation of reeds, that we might not give notice of our approach, being ignorant of the kind of animal we were about to meet. We had not gone far when the soil became so marshy, and the reeds entangled to such a degree, that we were obliged to get out of the plantation and wind along on the outside. We were soon near the animals, which we perceived consisted of rather a numerous troop of wild buffalos¹⁴. This animal is formed at first sight to inspire the beholder with

terror; it is endowed with an extraordinary degree of strength, and two or three of them were capable of destroying us in a moment, should they feel the desire of attacking us. My alarm was so great, that I remained for a few moments fixed to the spot like a statue. By good luck the dogs were far behind us, and the buffalos having never beheld the face of man, gave no sign of fear or of displeasure at our approach; they stood perfectly still, with their large round eyes fixed upon us in astonishment; those which were lying down got up slowly, but not one among them seemed to have any hostile disposition towards us. The circumstance of the dogs' absence was most likely, on this occasion, the means of our safety, for on the least demonstration from these, no doubt the fierce animals would instantly have fallen upon us. As it was, we had time to draw back quietly and prepare our fire-arms. It was not, however, my intention to make use of them in any way but for defence, being sensible that we were not strong enough for the encounter, and recollecting also to have read that the sound of a gun drives the buffalo to a state of desperation. I therefore thought only of retreating; and with my poor Jack, for whom I was more alarmed than for myself, was proceeding in this way, when unfortunately Turk and Ponto ran up to us,

and we could see were noticed by the buffalos. The animals instantly, and altogether, set up such a roar, as to make our nerves tremble with the shock of so terrible a noise ; they struck their horns and their hoofs upon the ground, which they tore up by pieces and scattered in the air. I with horror foresaw the moment when confounding us with the dogs, which no doubt they mistook for jackals, they would seize upon and tear us to pieces. Our brave Turk and Ponto, fearless of danger, ran among the troop in spite of all our efforts to detain them, and according to their manner of attacking, laid hold of the ears of a young buffalo which happened to be standing a few paces nearer to us than the rest ; and though the creature began a tremendous roar and motion with his hoofs, they held him fast, and were dragging him towards us. Thus hostilities had commenced ; and unless we could resolve to abandon the cause of our valiant defenders, we were now forced upon the measure of open war, which, considering the strength and number of the enemy, wore a face of the most pressing and inevitable danger. Our every hope seemed now to be in the chance of, the terror the buffalos would feel at the noise of our musketry, which for the first time would assail their organs, and perhaps excite them to flight. With, I must confess,

a palpitating heart and trembling hands, we fired both at the same moment: the buffalos, terrified by the sound and by the smoke, remained for an instant motionless, as if struck by a thunderbolt, and then one and all betook themselves to flight with such incredible rapidity that they were soon beyond the reach of our sight. We heard their loud roaring from a considerable distance, which by degrees subsided into silence, and we were left with only one of their terrific species near us; this one, a female, was no doubt the mother of the young buffalo which the dogs had seized and still kept a prisoner; she had drawn near on hearing its cries, and had been wounded by our guns, but not killed; the creature was in a furious state: after a moment's pause, she took aim at the dogs, and with her head on the ground, as if to guide her by the scent, was advancing in her rage, and would have torn them to pieces, if I had not prevented her by firing upon her with my double-barrelled gun, and thus putting an end to her existence.

It was only now that we began to breathe. A few moments before, death, in the most horrible and inevitable form, seemed to stare us in the face! But now we might hope that every danger was over! I was enchanted with the behaviour of my boy, who, instead of giving way to fears and lamentations, as

other lads of his age would probably have done, had stood all the time in a firm posture by my side, and had fired with a steady aim in silence. I bestowed freely on him the commendation he had so well deserved, and made him sensible how necessary it is in times of danger to preserve a presence of mind, which in many cases is of itself sufficient to effect the sought-for deliverance. But I had not time for a long discourse. The young buffalo still remained a prisoner with his ears in the mouths of the dogs, and the pain occasioned him to be so furious that I was fearful he might do them some injury. I therefore determined to advance and give them what assistance I might find practicable. To say the truth, I scarcely knew in what way to effect this. The buffalo, though young, was strong enough to revenge himself, if I were to give the dogs a sign to let go his ears. I had the power of killing him with a pistol at a stroke; but I had a great desire to preserve him alive, and to tame him, that he might be a substitute for the ass, which we now had no hope of recovering. I found myself altogether in a perplexing state of indecision, when Jack suddenly and unexpectedly interposed a most effective means for accomplishing my wishes. He had his string with balls in his pocket; he drew it out hastily, and making a few steps

backward, he threw it so skilfully as to entangle the buffalo completely, and throw him down. As I could then approach him safely, I tied his legs by two and two together with a very strong cord; the dogs released his ears, and from this moment we considered the buffalo as our own. Jack was almost mad with joy. What a magnificent creature! How much better than the ass he will look, harnessed to the cart! How my mother and the boys will be surprised and stare at him as we draw near! repeated he many and many times.

Father.—Ah hah! What, you already fancy him exactly to your wishes, Jack; already you have harnessed him to the loaded cart, while for my part I have not yet been able to conceive a means for even removing him from this place! Will you carry him upon your back?

Jack.—If I were Sampson or Hercules I would most willingly; but, father, he will be able to walk if we untie his legs.

Father.—And if we bid him do so, you think he will implicitly obey us?

Jack.—The dogs would make him get on.

Father.—And the buffalo might kill the dogs, Jack, and then turn back at a full gallop:—on reflection, the best way I think will be to tie his two fore-legs together, so tight

that he cannot run, and loose enough for him to walk, as they do to mischievous horses : I will assist the scheme by trying a method which is practised in Italy for subduing the buffalo ; you will think it somewhat cruel, but the success will be certain ; it shall afterwards be our study to make him amends by the kindest care and treatment. Hold you the cord which confines his legs with all your strength, that he may not be able to move :—I then called Turk and Ponto, and made each again take hold of the ears of the animal, who was now keeping his head quite still ; I took from my pocket a sharp and pointed knife, and held a piece of string in my hand in readiness ; I placed myself before the buffalo, and taking hold of his snout, I made a hole in his nostril, into which I quickly inserted the string, which I immediately tied so closely to a tree, that the animal was prevented from the least motion of the head, which might have inflamed the wound and increased his pain. I drew off the dogs the moment the operation was performed. The creature, thus rendered furious, would have run away, but the stricture of the legs and the pain in the nostril prevented it. The first attempt I made to pull the cord, found him docile and ready to accommodate his motions to our designs, and I perceived that we might now begin our

march. I left him for a short time to make some other preparations.

I was unwilling to leave so fine a prey as the dead buffalo behind us: I therefore, after considering what was to be done, began by cutting out the tongue, which I sprinkled with some of the salt we had in our provision-bag: I next took off the skin from the four feet, taking care not to tear it in the operation. I remembered that the Americans use these skins, which are of a soft and flexible quality, as boots and shoes, and I considered them as precious articles. I lastly cut some of the flesh of the animal with the skin on, and salted it, and abandoned the rest to the dogs, as a recompense for the valour of their behaviour, and I then repaired to the river to wash myself after the performance of these butcher-like employments.

We now seated ourselves under the shade of a large tree; and as we ate the remaining portion of our provisions, amused ourselves with an animated review of the scene which had been passing. Our dogs were no less busily employed in greedily devouring the flesh of the buffalo.

As we were not disposed to leave the spot in a hurry, I desired Jack to take the saw and cut down a small quantity of the reeds, which from their enormous size might hereafter be of use to us. We set to work, but

I observed that he took pains to choose the smallest.—What shall we do, said I, with these small-sized reeds? You are thinking, I presume, of nothing better than providing a bag-pipe to announce a triumphal arrival to our companions! You are mistaken, father, answered Jack; I am thinking rather of some candlesticks to present to my mother, who will set so high a value on them!

This is a good thought, my boy, said I, tapping him on the shoulder, I am well pleased both with the kindness and the readiness of your invention, and I will give you my assistance in trying to empty the reeds without breaking them; if we should not succeed, at least we know where to provide ourselves with more. I now helped him to choose some reeds, and soon after we set out on our return home.

We had so many and such heavy articles to remove, that I did not hesitate to dismiss, for that day, all thoughts of looking further for the ass, that we might return the sooner to our companions to relieve any uneasiness they might have felt at our long stay, and also to be myself satisfied respecting their safety during our absence. I began now to think of untying the young buffalo; and on approaching him, perceived with pleasure that he was asleep, which afforded me a proof that his wound was not extremely pain-

ful. When I awaked him he gave a start as I began to pull him gently with the string ; but he afterwards seemed to forget his pain, and followed me without resistance. I fastened another string to his horns, and led him on by drawing both together ; and he performed the journey with little inconvenience, and with so unexpected a docility, that to ease ourselves of a part of the heavy burdens we had to carry, we even ventured on the measure of fastening the bundles of reeds upon his back, and upon these we laid the salted pieces of the buffalo. The creature did not seem aware that he was carrying a load ; he followed in our path, as before, and thus on the first day of our acquaintance he rendered us an essential service.

In a short time we found ourselves once more at the narrow passage between the torrent and the precipice of the rocks, which I have already mentioned. Near this spot, we met with a large jackal, who on perceiving us, slunk away, but was stoutly pursued by our brave dogs, who overtook him at the entrance of a cavern, and forced him to give them battle. The fight, however, was unequal ; the dogs were two to one, besides being protected by their pointed collars, which enabled them to resist the most skilful attacks of the enemy. When we got up to them, the jackal was already killed. On

examining our prey, we found it was a female, which from appearances had lately brought forth young, and we therefore concluded that she was going to suckle them in the cavern, where no doubt they lay concealed. Jack would instantly have entered to search for them; but I prevented him, from the apprehension that the male might also be there for the purpose of guarding them. I accordingly used the precaution of shooting off my piece into the dark profundity which presented itself, when finding all quiet, I gave him leave to enter, being myself both proud and gratified by every proof he gave of personal courage.

For some moments after entering the cavern, the complete darkness which prevailed prevented him from seeing any thing around him; but when his eyes had become accustomed to it, he discerned in a corner a litter of young jackals: the dogs who accompanied had before discovered them by the smell; they flew upon the creatures without mercy, and with the exception of one, which Jack found means to preserve, put an end to their existence. He came out of the cavern with the young jackal in his arms, asking if he might have leave to rear it as Fritz had done his monkey; and to this I made no objection, being unwilling to refuse to one of my children what I had granted to another; besides

that it appeared to me that nothing could be so cruel as to kill the innocent little being in cold blood, or to leave it there to perish. I also felt the inclination to make an experiment on the effects and power of education, and to observe if it should be possible to succeed in taming him in such a degree as to obtain in consequence a race of good running dogs; at all events it seemed worth while to convince ourselves by the experiment. Jack therefore obtained leave to keep him, and could scarcely express the joy he felt: he pressed the animal to his bosom, and devoured it with kisses, and promised to bestow upon him so faultless an education, that he should become the gentlest and most engaging little creature in the world.

We now left the cavern. I had fastened the young buffalo to a tree near the cascade without remarking of what species it might be; when I went to release him, I saw that it was a kind of small palm-tree, and on looking about me I observed also some other kinds of the palm which I had not before met with¹⁵. One of the kinds I now remarked was from ten to twelve feet in height; its leaves were armed with thorns, and it bore a fruit resembling a small cucumber in form, but which at this time was immature, so that we could not taste it. The second, which was smaller, was also thorny; it was now in

blossom, and had no fruit. I suspected that the first of these was the *little royal palm*, sometimes called *awiva*, or *Adam's needle*; and the other, the *dwarf palm*. I resolved to avail myself of both for further fortifying my enclosure at Tent-House, and also to protect the outer side of the narrow pass immediately over the torrent of the cascade. I determined to return and plant a line of them there, as close to each other as the consideration of their growth would allow; for my intention, of course, was to effect this by means of the young shoots which presented themselves in great abundance; we also hoped by that time to find their fruit ripe, and to ascertain their kind.

We repassed the river in safety, and accompanied by the agreeable noise of its foaming cascades, we regained the hazardous and narrow pass at the turn of the rocks. We however proceeded with caution, and finding ourselves safe on the other side, we thought of quickening our pace to arrive the sooner at the hut: we accordingly had the happiness to rejoin our friends before the close of the evening; and though we were somewhat fatigued, yet in other respects we were well and satisfied with the success of our various undertakings. We were received with the liveliest demonstrations of joy, and, as usual, a thousand questions asked at once. Where,

how and where did we procure such interesting creatures as the buffalo and the golden fox? Shall we see the precipice and the cascade at the end of the wall of rocks?—Questions were so rapidly proposed to us, that we were obliged to demand on our parts the necessary time for answering them. This being granted, the story of our different adventures served for the amusement of the evening: conversing happily together concerning them, we enjoyed the sober meal which had been prepared for us; and having warmed ourselves by the fire, we retired in thankfulness to rest.

CHAPTER XXVII.

The Malabar eagle, and sago manufactory.

MY wife the next morning began the conversation. She told me the children had been good and diligent, that all of them had ascended Cape Disappointment together, that they had gathered wood and made some torches for the night; and, what I could scarcely think possible, they had ventured to fell an immense palm-tree, to the top of which Ernest had again climbed for amusement; and afterwards they undertook the laborious and perilous work of bringing it down, which they also happily executed. This monarch of the forests lay prostrate on the ground, and covered a space of at least seventy feet in length. To effect their purpose, Ernest had got up the tree a second time, with a long rope which he fastened tight to the top of it. As soon as he had come down again, he and Fritz worked with the axe and saw, to cut it through. When it was nearly divided, they cautiously managed its fall with the rope, and in this manner they succeeded. But during their excursion and labours, a

somewhat unfortunate visit took place. A numerous group of monkeys had found their way to the hut: every drop of the palm-wine we had preserved in our gourd-shells, these intrusive gentry contrived to swallow; they had upset and thrown about all the potatoes, stolen the cocoa-nuts, and disturbed, nay even almost wholly demolished, the order of the branches and other contrivances we had recourse to for our hut; so that my children on their return were employed a full hour in repairing the damage effected by those mischievous creatures. Fritz was in high spirits with the luck he had met with and secured; he brought me on his wrist a young bird of prey, of the most beauteous plumage; he had taken it from a nest in one of the rocks near the hill at Cape Disappointment. Very young as the bird was, it had already all its feathers, though they had not yet received their full colouring; but it was evidently not an European eagle, and I supposed it to be the beautiful eagle of Mala-bar¹⁶. I viewed it with the admiration it was entitled to:—meeting with one of these birds is thought a lucky omen; and as this species of eagle is neither large nor expensive in its food, I was desirous to train it like a falcon to pursue smaller birds. Fritz had already covered its eyes and fastened the foot with packthread; I advised him to hold it often,

and for a length of time, on his hand, and to tame it with hunger as falconers do.

When we had all finished our narratives, my wife began her usual lamentations upon the subject of so many living and devouring animals being brought to her, and which she said must in no long time, from the food they required, become burthensome to us. I consoled her with some difficulty, by observing that the buffalo would be a good substitute for the ass ; and I established as an invariable law, that he who wished to have a useful animal in his service, should also have the care of keeping it. It is a cruelty, said I, to deprive a feeling creature of its liberty, for a transient pleasure or amusement to ourselves, and to make it suffer ; we ought, on the contrary, to recompense it for the privation it would have to endure, by kind treatment and feeding it well. I declare then, that he who neglects the animals committed to his charge shall no longer be thought worthy of having so important a care intrusted to him. This warning intimidated my hearers ; for man is a creature so formed for society, and so dependent upon it for his comforts and content, that, when by accidents deprived of intercourse with his own species, he attaches himself to the brute creation with even warm affection. This satisfied the kind temper of my wife ; and as she was herself

very partial to animals, she promised her sons to take the charge of one and all of the animals upon herself whenever their absence from home should render this necessary. We communicated to each other our hopes that such attentions would form them to more active, regular, and constant habits of affection and mildness towards us. I have said, I frequently noticed that treating animals with kindness tends to produce the benign effects I have been speaking of.

I next ordered a fire to be lighted and a quantity of green wood to be put on it, for the purpose of raising a thick smoke, over which I meant to hang the buffalo meat I had salted, to dry and preserve it for our future use; and this was done accordingly. We fixed pieces of it on long forked poles. I cut away what appeared not quite fresh, and saw our little eagle feast upon it voraciously. The young buffalo was beginning to browse, but the cow's milk was still given it; and Jack succeeded in making his little jackal drink some occasionally, likewise. We added to the buffalo's meal, whose appetite we found to be enormous, a heap of sliced potatoes, the whole of which he greedily devoured; and this led us to conclude that the pain from the wound in his nose was subsided, and that he would soon become tame.

Supper-time was now arrived, and we did

not fail to acquit ourselves at it, as well, to say the least, as our cattle, seasoning our repast with lively anecdotes and affectionate conversation. The combat with the buffalos excited much raillery; but we saw that it was no less intended for compliment also, nor was our design to make boots and shoes of their hoofs passed over in silence; the candle-moulds too came in for a share in these their playful attacks upon what they called the wonderful feats we had performed. Jack persisted in defending himself, and this he did so cleverly as to point the laughter at the adversary. The arrangements for this night were much the same as for the preceding. We left our meat suspended over the smoke of our fires during our sleep; we tied the young buffalo by the side of the cow, and were pleased to see them agree and bid fair to live in peace together. The dogs were set upon the watch. Fritz resolved to go to bed with his eaglet fastened on his wrist, and its eyes still bound: it remained in this state throughout the night without disturbing its master. The time of repose elapsed so calmly that none of us awoke to keep in the torch-lights, which now for the first time the industry of the boys had supplied us with, and we did not get up till after sun-rise. Directly after a moderate breakfast I chaunted the accustomed summons for our setting out; but

my young ones had some projects in their heads, and neither they nor their mother were just then in the humour to obey me.

Let us reflect a little first, said my wife : as we had so much difficulty in felling the palm-tree, would it not be a pity to lose our labour by leaving it in this place ? It is the one from which Ernest cut out the famous cabbage : as it was thus deprived of future growth and bearing fruit, we wished to reap benefit from it in another way ; Ernest assures me it is a sago-tree ; if so, the pith would be an excellent ingredient for our soups. I request you will examine it, and let us see if in any way we can turn it to account.

I found she was in the right : but in that case it was necessary to employ a day in the business, since to open from one end to the other the trunk of a tree sixty feet long was not a trivial task. I assented however with some readiness, as, independent of the use of the farinaceous pith, I could, by emptying it, obtain two handsome and large troughs for the conveyance of water from Jackal's river to my wife's kitchen garden at Tent House, and thence to my new plantations of trees.

Fritz.—One of the halves, father, will answer that purpose, and the other will serve as a conduit for our little stream from Falcon's Nest into my pretty basin lined with tortoise-shell ; we then shall be constantly

regaled with the agreeable view of a fountain close to our dwelling:—I fancy it now before my eyes and that I see its course. And I, for my part, said Ernest, long for a sight of the sago formed into small grains as I have seen it in Europe. Can you, father, make it up into that sort of composition?

With your help I think I could. Come, let us set up a famous manufactory of vermicelli and macaroni! and what other delicacy shall I say?

Francis:— Oh! yes, papa, I intreat you, macaroni! it is so nice, I will assist in making that.

Little glutton! answered I, you would, I imagine, rather assist in eating up all we can make. I do not however promise that our manufactory will produce such good and well made articles as those of Genoa and Naples; but let us first make the sago-paste; and afterwards work it up for such purposes of magnificence as in our profound wisdom we may afterwards be led to desire. Have we not one of our manioc graters here at hand?

Yes certainly, replied Ernest. We were even thinking of making some of them here for our amusement, but we found we were not likely to want employment: and he accordingly scampered away to fetch it me, while the rest crowded round me. Patience, children, patience, exclaimed I; we are not

yet in readiness to use it, many other matters are previously requisite: in the first place you must assist me to raise this palm-tree from the ground, and it must be done by fixing at each end two small cross pieces or props to support it; to split it open as it lies, would be a work of too much labour: this done, I shall want several wooden wedges to keep the cleft open while I am sawing it, and afterwards a sufficient quantity of water. There is the difficulty, said my wife; our Falcon's Stream is too far off, and we have not yet discovered any spring in the neighbourhood of this place.

Ernest.—That is of no consequence, mother; I have seen hereabouts so great an abundance of the plants which contain water, that we need not be at a loss; for they will fully supply us, if I could only contrive to get vessels enough to hold it.

We now produced the enormous reeds we had brought home, which being hollow would answer the purpose of vessels: and as some time was required to draw off the water from such small tubes, he and Francis at once set to work; they cut a number of the plants, which they placed slantingly over the brim of a vessel, and whilst that was filling they were preparing another. The rest of us got round the tree, and with our united strength we soon succeeded in raising the heavy trunk,

and the top of it was then sawed off. We next began to split it through the whole length, and this the softness of the wood enabled us to effect with little trouble. We soon reached the pith or marrow that fills up the middle of the trunk the whole of its length. When divided, we laid one half on the ground, and we pressed the pith together with our hands so as to make temporary room for the pith of the other half of the trunk, which rested still on the props. We wished to empty it entirely, that we might employ it as a kneading-trough, leaving merely enough of the pith at both ends to prevent a running out, and then we proceeded to form our paste. We had fastened the grater at one end, for the purpose of squeezing the paste through the small holes as soon as it was made.

My young manufacturers with stripped arms joyfully fell to work, and really surpassed my expectation ; they brought water in succession and poured it gradually into the trough, whilst we mixed it with the flour. In a short time the paste appeared sufficiently fermented ; I then made an aperture at the bottom of the grater on its outside, and pressed the paste strongly with my hand ; the farinaceous parts passed with ease through the small holes of the grater, and the ligneous parts blended with particles of wood, which did not pass, were thrown aside in a heap,

in the hope that mushrooms, &c. might spring from them. My boys were in readiness to receive in the reed vessels, what fell from the grater, and conveyed it directly to their mother, whose business was to spread out the small grains in the sun upon sail-cloth for the purpose of drying them. The subsequent process was the making of vermicelli, by working up the paste into a thicker consistency and pressing it more forcibly against the perforations of the grater; they passed through in slender rolls of different lengths, which were quickly dried by means of a gentle fire. To remunerate our toil my wife promised to dress us an excellent dish of this new manufacture, with some Dutch cheese, similar to Italian macaroni. Thus we procured a good supply of a wholesome and pleasant food; and should have had a larger stock of it, had we not been restricted as to time; but the privilege of renewing the process at pleasure, by felling a sago-tree, added to some impatience to take home our two pretty conduits and employ them as proposed, prompted us to expedite the business. The paste which remained was thrown upon the mushroom-bed, and watered well to promote a fermentation.

We employed ourselves the remainder of the evening in loading the cart with our tools and the two halves of the tree. Night

coming on, we retired to our hut, where we enjoyed our usual repose, and early next morning were ready to return to Falcon's Stream. Our buffalo now commenced his service, yoked with the cow ; he supplied the want of the ass, and was very tractable : it is true I led him by the cord which passed through his nose, and thus I restrained him within the bounds of his duty whenever he was disposed to deviate.

We returned the same way as we came, in order to load the cart with a provision of berries, wax, and elastic gum. I gave up looking for eggs this day, as I was very desirous to get back as soon as possible to Falcon's Stream, to look after the beasts we had left there. I sent forward Fritz and Jack as a van-guard, with one of the dogs ; they were to cut a commodious and secure road through the bushes for our cart. The two water conductors, which were very long, produced numerous difficulties and somewhat impeded our progress. My sons well performed their task, and we reached with tolerable speed and without any accident the wax and gum trees, where we halted to place our sacks filled with berries in the cart. The elastic gum had not yielded as much as I expected, from the too rapid thickening caused by an ardent sun, and an incrustation formed over the incision : we

obtained however about a quart, which sufficed for the experiment of the impenetrable boots I had so long desired.

We set out again, still preceded by our pioneers, who cleared the way for us through the little wood of guavas. Suddenly we heard a dreadful noise which came from our van-guard, and beheld Fritz and Jack hastening towards us. I began now to fear a tiger or panther was near at hand, or had perhaps attacked them. Turk began to bark so frightfully, and Ponto running up to him joined in so hideous a yell, that I prepared myself, not without terror, for a bloody conflict. I advanced at the head of my troop, who expressed their determination to follow me to the assistance of those I thought in danger, and my high-mettled dogs ran furiously up to a thicket, where they stopped, and with their noses to the ground and almost breathless strove to enter it: I had no doubt some terrible animal was lurking there; and Fritz, who had seen it through the leaves, confirmed my suspicion; he said it was about the size of the young buffalo, and that its hair was black and shaggy. I was going to fire at it promiscuously in the thicket, when Jack, who had thrown himself on his face on the ground to have a better view of the animal, got up in a fit of laughter—It is only, exclaimed he, dame pig, that has

played us another trick—our old sow, who is never tired of playing off her tricks upon us. He had hardly spoken, when the grunting of the concealed monster justified the assertion made by Jack. Half vexed, half laughing, we broke into the midst of the thicket, where in reality we found our sow stretched supinely on the earth, but by no means in a state of dreary solitude; the good matron had round her seven little creatures, which had been littered a few days, and were sprawling about contending with each other for the best place near their mother for a hearty meal. This discovery gave us considerable satisfaction, and we all greeted the corpulent creature, who seemed to recollect and welcome us with a sociable kind of grunting, while she licked her young without any ceremony or show of fear. We rewarded her docility with potatoes, sweet acorns, and manioc bread; for the boys one and all readily consented to go without themselves for her accommodation: they felt obliged to her for the new family she had given them, and anticipated ideally the pleasure of beholding a nice crisp suckling pig before the fire. But their mother censured their greedy impatience and cruelty, in already thinking about roasting the poor animals on their very entrance into life. A general consultation took place—should this swinish family be left where we found it, or

conveyed to Falcon's Stream? Fritz voted for their being all left to run at large like the wild boars in Europe, that he might have the sport of hunting them. My wife, like a good housewife, proposed that two of them at least should be domesticated for breeding; and as to the old sow, as she was always running away, it would be better to kill her when done suckling, and she would afford a large provision of salt meat;—and her opinion was adopted. For the moment they were suffered to keep quiet possession of their retreat; we resolved to rear three of them, and allow the other four to take to the woods, where they might be hunted if they injured our plantations.

We then, so many adventures ended, pursued our road to Falcon's Stream, and arrived there in safety and content;—so true it is, that home is always dear and sacred to the heart, and anticipated with delight. All was in due order, and our domestic animals welcomed our return in their own jargon and manner, but which did not fail to be expressive of their satisfaction in seeing us again. We threw them some of the food we knew them to be the most partial to, which they greedily accepted, and then voluntarily went back to their usual stand. It was necessary to practise a measure dictated by prudence, which was to tie up again the buffalo and

jackal, to inure them by degrees to confinement; and the handsome Malabar eagle shared the same fate: Fritz deemed himself remarkably clever in placing it near the parrot on the root of a tree; he fastened it with a piece of packthread of sufficient length to allow it free motion, and uncovered its eyes: till then the bird had been tolerably quiet; but the instant it was restored to light, it fell into a species of rage that surprised us; it proudly raised its head; its feathers became ruffled, and its eye-balls seemed to whirl in their orbits and dart out vivid lightnings. All the poultry was terrified and fled; but the poor luckless parrot was too near the sanguinary creature to escape. Before we were aware of the danger, it was seized and mangled by the formidable hooked beak of the eagle in an almost inconceivably short space of time. Fritz vented his anger in loud, severe, and passionate reproaches: he would have killed the murderer on the spot, had not Ernest run up and entreated him to spare its life: Parrots, said he, we shall find in plenty, but never perhaps so beauteous, so magnificent a bird as this eagle, which, as father observes, we may train for hawking. You may too blame only yourself, continued Ernest, for the parrot's death;—why did you uncover the eagle's eyes? If you had consulted me, I could

have told you that falconers keep them covered six weeks, till they are completely tamed. But now, brother, let me for a certain time have the care of him, let me manage the unruly fellow ; he shall soon, in consequence of the methods I shall use, be as tractable and submissive as a new-born puppy ; say then that you consent, I will pledge myself you shall not be disappointed.

Yes, forsooth, said Fritz, but I shall not give you my eagle neither ; it is mine, and I will not part with it to any one ; I can bring it up myself, only tell me how ; it will be very unkind not to teach me the way—Father, is not Ernest very ungenerous to keep his management of eagles a secret, and wanting to bring it up himself ?—Ernest, by the by, had signified his refusal by a shake of the head.

Gently, gently, children, said I : Fritz, listen to a little moral fable. “ A dog placed himself on a truss of straw, which he considered as his property. An ass and an ox extremely hungry entreated permission to eat some of it, as it could not serve him for food ; but the surly selfish cur would not even suffer them to approach it. Envious animal, said the ox, *eat thy straw, or permit it to be eaten by another* ; but the dog was deaf to their entreaties, and dismissed them with snarling selfishness.” Now tell

me, boy, is not your conduct on this occasion similar to the selfish dog's? You know not how to tame your eagle, you a few minutes ago would even have inflicted death upon it, and now you refuse to give it to Ernest, who promises to bring it up, because you are envious of his knowing more than you do: as he has reflected more than you on what he has read, it is but just he should wish to derive some advantage from his reading and knowledge; you cannot do less than make him a civil offer of something for his secret, if you persist in not resigning your eagle. Should Ernest after this, have the generosity to impart it without the reward, the greater will be his merit, and I shall be pleased with you both.

Right, father, replied Fritz briskly; well, I will give him my monkey if he chooses to have it.—An eagle is a more noble and heroical animal; as I found it, I mean to keep it; but you will teach me to tame it? What say you, Ernest? Do you accept my offer?

Ernest.—With all my heart; but I value the heroism you talk of, very little: I for my part prefer being learned; you shall be knight of the eagle if you think proper, and I your historiographer and poet. I will write a grand epic poem to record the splendid deeds of the knight and his eagle.

Fritz.—Poor jeering this, master Ernest ! but, no matter ; take the monkey, and teach me to tame my eagle : How shall I render it more docile and quiet ?

Ernest.—I have read somewhere that the Caribs puff tobacco-smoke into the nostrils of the birds of prey and of the parrots they catch, until they are giddy and almost senseless ; —this stupefaction over, they are no longer wild and untractable.

Fritz.—And this is the great witchcraft ! Tobacco-smoke ! it was worth puffing off to be sure ! Your secret is not equivalent to the property of my monkey, is it, Father ?

Why not ? If the bargain is fair, as I think it is, it should by all means hold good ; if not, Ernest will not require any thing for useless counsel ; but I have reason to think well of the method, and therefore approve of it. Bees may be stupefied in the same manner, so as to take them without resistance, or how could the honey-comb be obtained ? The notion I assure you, boys, is far from bad.

Francis.—Oh ! then there is a way to hinder the naughty bees from stinging poor little boys who want just to taste their honey ? Good papa, pray go and smoke awhile opposite that hole in the tree, and make these stinging gentry sleep long enough

for us to take away at least half of their honey without being devoured by them.

Fritz having consented to the experiment, took some tobacco and a pipe, of which we had found plenty in the sailors' chests, and began to smoke, at the same time gradually approaching the unruly bird. As soon as it was somewhat composed, he replaced the fillet over the eyes, and smoked close to its beak and nostrils so effectually, that it became motionless on the spot, and had the exact air of a stuffed bird. Fritz thought it dead, and was inclined to be angry with his brother; but I told him it would not hold on the perch if it were lifeless, and that its head alone was affected,—and so it proved. The favourite came to itself by degrees, and made no noise when its eyes were unbound; it looked at us with an air of surprise, but void of fury, and grew tamer and calmer every day. The monkey was adjudged unanimously to Ernest, who took possession of it the same evening, and made it lie down near him. We all passed an excellent night in our green castle, and in our good beds, which we returned to with abundant satisfaction.

CHAPTER XXVIII.

*Origin of some European fruit-trees.—
Bees.*

WE commenced early the next day a business which we had long determined to engage in : it was to plant bamboos close to all the young trees, to support them effectually in their growth. We quitted our tree with great alertness, having our cart loaded with canes and a large pointed iron to dig holes in the ground. We left my wife this time with only her dear little Francis, requesting them to prepare us a plentiful dinner, and to include the palm-tree cabbage and the sago-macaroni mixed with some Dutch cheese ; in addition to these performances, they volunteered the melting some of the wax berries for our store of candles.

We did not take the buffalo with us, as I wished to give it a day's rest for its nose to heal up ; the cow was sufficient for drawing the load of light bamboo canes. Before setting out, we gave the buffalo a few handfuls of salt, to ingratiate ourselves with our

horned companion; and this treat, pleased him so highly, that he showed by many signs his inclination of accompanying us; and to prevent this, we were compelled to fasten him securely till we were out of sight.

We began our work at the entrance of the avenue which we had formed, and nearest to Falcon's Stream. The walnut, chesnut, and cherry-trees we had planted in a regular line and at equal distances, we found disposed to bend considerably to one side, seemingly as they had been directed by the wind. Being the strongest, I took the task of making holes with the implement, upon myself, which, as the soil was light, I easily performed, taking care to go deep enough to fix the stake firmly. In the mean time the boys selected the bamboos, cut them of equal lengths, and pointed the ends to go into the ground. When they were well fixed, we threw up the earth compactly about them, and fastened the saplings by the branches to them with some long, straight tendrils of a plant which we found near the spot. In the midst of our exertions we entered with much detail into a conversation respecting the culture of trees. Till then my boys had only thought of eating fruits, without giving themselves much trouble about their production; but now their curiosity

was excited, and they questioned me so closely on the subject, that I was somewhat at a loss in answering them. I communicated however, with pleasure, all within my knowledge: I perceived that the occasion was particularly favourable for rendering my lessons instructive and truly profitable, as the occupation we were engaged in gave me an opportunity to illustrate the lesson by means of the objects before our eyes. I shall briefly relate the summary of our discourse, which may be of use to young persons designed for an agricultural life.

Fritz.—Are the young trees that we have recently planted, and just propped up, wild or cultivated?

Jack.—A pretty question indeed! Do you imagine that trees are tamed like buffalos and eagles? You would perhaps teach them to stoop politely when we come to gather their fruit, to avoid giving us the trouble of reaching to their branches.

Fritz.—You suppose, friend Jack, that your speech is very witty, while in reality it is only nonsense. Do you think then that all created beings are brought up alike? If so, papa should punish the first occurrence of ill behaviour in you, by passing a cord through your nose, like the buffalo, to render you more considerate and compliant.

Ernest.—We should soon, if this plan were adopted, see brother Jack with a bridle round his neck.

Father.—All of you, children, would be exposed to such discipline as this, if there were no other means: but the observation of Fritz is perfectly just; men are not brought up like brutes, nor are brutes trained like plants, though the education of all ever tends to the same end—that of subjecting the will to the yoke of necessity and duty, and to make them walk upright: for did not these trees bend to every wind till we raised and supported them. Every creature is capable of improvement, if not susceptible of perfection, that is to say, with care and cultivation, every being may become better, and acquire virtues and qualities which, left to himself and nature, he would be destitute of; thus I render our buffalo, and you your jackal, tame and manageable, by making them feel the power of man over brutes; thus I strive, my dear children, to lead you on towards perfection, by cultivating your understanding, giving you, as far as I am able, good lessons and good examples; so these trees, which at first were mere wild stocks, produced from kernels or seeds, and bearing only small imperfect fruits, have been made to produce those of an excellent quality by grafting on them a superior species. Come

here, examine this branch ; it is easy to see it has been inserted into this other branch ; all the rest were lopped away, and this alone preserved ; the whole of the sap or nutritious juice flowed then to this point, and thence diffused itself ; and thus the wild sapling is become a fine fruitful tree, producing as good fruit as that from which the graft was taken.—Such is the process of ingrafting.

Fritz.—There are many things in it I do not yet understand ; I have often heard of the inoculation of trees—is that the same as ingrafting them ?

Father.—Nearly so ; to *inoculate* is, I believe, the appropriate term for the operation, and *graft* that for the branch, or part inserted. According to the different species of trees, different methods and seasons are chosen ; different terms are also adopted ; and when the first insertion fails, a second, and even a third attempt is made.

Jack.—Can good fruits be grafted on every kind of tree, such as firs, or oaks ?

Father.—No, my son ; trees of an homogeneous kind must be selected.

Jack.—Ah ! now that's a fruit I am a stranger to ; *homogeneous*—is it very good ? are they to be found here ? I long to taste them.

Father.—It is not a fruit, my dear child: it is, I confess, rather too learned a word, which I was wrong to use without explanation. It is derived or comes from the Greek, and signifies *of the same nature, or bearing great similitude*; thus an apple, a pear, a quince-tree, may be ingrafted on each other, because their wood and their seeds are homogeneous or resemble each other. It is the same with a variety of fruits having stones and kernels; the cherry, plum, peach, and almond-tree: to attempt to graft any of these on a pine or oak, would be useless; so with the best education every man is not constituted to be learned, to form an artist or a general.

Fritz.—You said, father, that the wild stocks or trees, produced only from seed, bear but indifferent fruits; how is it, then, with all those in our island—our good cocoas and guavas were not grafted, as no gardeners or other persons were here to perform the operation?

Father.—Your remark is just; but I spoke only of our fruit-trees in Europe, where, almost without exception, the fruits require to be meliorated by a better soil, ingrafting, and culture. No doubt kind Providence has meant to indemnify these burning climes for many inconveniences, in bestowing on them

palm-trees and other agreeable fruits that grow spontaneously and without trouble or labour on the soil.

Ernest.—I comprehend all this: yet one thing puzzles me; how were the scions and grafts of the best kinds first procured in Europe?

Jack.—What a question! From those who had them, certainly.

Ernest.—And what a reply! I answer. And where did those from whom they were obtained get them? I wish to know where the first branches of the best species were had, before any persons had undertaken the husbandry of trees, or thought of ingrafting them. All trees, I presume, were wild originally.....

Jack.—Indeed!.....What think you then of the terrestrial paradise? Do you not believe that excellent fruits of all kinds were there? And might not the scions and grafts you are so puzzled about, have been taken there to any number?

Father.—My dear young pupil, if you had read the Bible with attention, you would have seen that our father Adam was driven out of the terrestrial paradise for having eaten of one of those goodly fruits, contrary to the positive prohibition of God; and as he and his wife Eve were then alone on the earth, none could go and take grafts in that

beautiful garden, which moreover was not in Europe; therefore the inquiry of Ernest is just and sensible. Good fruit-trees are doubtless natives of some part of the earth, where they bear spontaneously, in their natural climate, as good fruits as those we raise in ours with care and art. Such trees were torn from their native soil when young, and transplanted into Europe, where, by the assiduous attentions of the gardener, they prospered, and furnished grafts for their multiplication; for the European climate is so little fitted to the natural production of good fruits, that the best tree, propagated from mere seed, soon resumes the wild state, and requires to be grafted. Gardeners usually collect a number of tender shoots or saplings in an inclosure, which they first raise by seed and afterwards ingraft; these inclosures are called nurseries, where such plants are purchased, and where all these shipped for our use were procured.

Fritz.—Do you know, father, the native country of all these trees?

Father.—Of most of them, I think. The vine I have ventured to plant near our tree at Falcon's Stream, grows only in the temperate zone; it neither thrives in very cold countries nor under the torrid zone, though it generally prefers the south to the north. The vine is of antient date; for we find in

the Bible that Noah was acquainted with the use of it. It seems then that the vine is a native of Asia Minor and Armenia ; and it appears to have been brought at a very remote period into Egypt, Greece, and most parts of Europe. The fabulous accounts in mythology of Bacchus, relate, no doubt, to the propagation of the vine. Italy probably received it from the emigrant Greeks and from the Romans, who became masters of the known world ; thence it was carried into Gaul, Spain, Germany, and those parts of Switzerland in which it promised to thrive : perhaps the Phœnicians too had previously transported it to some of the above mentioned countries.

The boys speaking together.—And the apple, pear, chesnut, walnut, almond, peach, and mulberry-trees ?

Father.—Patience, patience, prattlers ! Can I tell you every thing in a breath ? And pray speak one after the other, gentlemen.—Fruits with shells or pods, such as the nut, almond, and chesnut, generally called *glands* or *hernels* by the Romans, come from the East ; but that is too general a term,—for the East being the quarter in which the sun rises, includes too many regions. Chesnuts were called by the antients *glandes Sardes*, from Syria, a province of Asia Minor, and they received their present name from a Grecian

town, near which they were cultivated in abundance. As to walnuts, they were formerly named *glandes Jovis*, (*Jupiter's acorns or kernels*) by the Romans; they are originally from Persia, and were spread through Europe by the Roman conquests. The great filberd-tree, bearing the Portugal nut or filberd, is originally from Pontus, a country of Asia Minor, and has been transplanted in the same way as the preceding. The origin of the almond-tree is uncertain; it is found wild in Asia and Africa: its fruit bore the name of *thalos* in Greece, because it had been first transplanted from an island of that name in the Archipelago.

Jack.—And cherries, papa,—cherries I like so much? Such quantities of them are in Switzerland, on the high roads and every where, that I think them natives of my country.

Father.—Not so, my friend; but of all exotic fruits it is certainly the one that thrives the most with us. They derived their name from *Cerasus*, another town of the Pontus already mentioned to you, and if I recollect right, the place is called *Chirisarda*. The celebrated Roman general Lucullus, after his victory over Mithridates king of Pontus, was the first who transported them into Europe, seventy years before the birth of Christ.

Ernest.—I have not read any thing about

cherries in Eutropius, where I should have been glad to find some account of them.

Father.—I am of your opinion, Ernest, that historians would have done as well to give the names of those who procured an agreeable fruit, as in recording the destroyers of mankind.

In this kind of instructive conversation we had got to the end of our alley of trees, which looked all the better for the uprightness we had restored them to. This accomplished, we crossed Family Bridge on our way to the southern plantation of trees, in order to raise and prop them also. We were delighted with the view of beautiful orange, citron, and pomegranate trees, that had all taken root and were thriving to our satisfaction, as well as the pistachio and mulberry trees. Some of these were in blossom, and inspired us with the most pleasing hope. We quickly set to work, and my sons with increased curiosity renewed their inquiries concerning the origin of these delicious fruits.

Ah! how charming the country must be where such fruits as these grow spontaneously! exclaimed Fritz.

Considered as confined to this question only, said I, this country, no doubt, may be termed propitious; but in some other respects it has likewise its unfavourable side. All the fruits abounding with acid and refreshing

juices, are natives of the torrid or burning zone, or of parts of the temperate zone most adjacent to it; they seem to have been designed to cool the mass of blood, and keep off the inflammatory diseases so frequent in these climates. Orange and lemon trees are certainly, as I think, from Medea and Assyria; the Romans called them *mala Medica*, or Medean apples; they were brought by the Persians to Albina, and thence into Sicily and the island of Malta, where the best species of orange trees is still found; they were afterwards transplanted to Italy, and in succession to many other parts of Europe. Pomegranates were named *mala Punicea*, (*Punic apples*,) and doubtless were brought by the Phœnicians and Carthaginians into the southern provinces of Europe. I have no positive knowledge of the original growth of pistachios. You are now, children, tolerably well informed on the subject of fruit trees.

All.—No no, dear father, since you have gone so far, and are so kind as not to be tired of instructing us, pray tell us the primitive country of all the trees we have to straighten and prop; the description amuses us exceedingly.

I am glad of it, and all I know is entirely at your service; but hearing in this sudden and rapid succession, the species, qualities, and countries of such a variety of fruits, you

will, I fear, overload your memory and forget the whole.

Fritz.—Pardon me, father, every one will recollect perfectly what relates to his favourite fruit, and we shall often talk on the subject in our walks under the shade of the very trees so principally concerned.

Father.—Well, be it so! Thus it is in fact with all the sciences; we do not easily forget what we wish to know, what is connected with our desires and hopes;—propose your questions then, and I will answer you as fully as I am able.

Fritz.—Well then, father, from what part do olives come originally?

Father.—From Armenia and Palestine: Authors of antiquity say, that Hercules brought the first into Europe, and planted them on Mount Olympus; they were gradually cultivated throughout Greece, and especially in the territory of Athens, whence they came into Italy, and from thence were spread over the south of France, and in Spain, where they are cultivated with the greatest care, on account of the excellent oil which is extracted from them. Figs belong to the same native soil; they were brought from Lydia and the isle of Chios into the Archipelago, in the time of Cato the Elder: they were transplanted into Gaul a long while after, by the emperor Julian, who was

previously prefect or governor of that Roman province. Peaches are from Persia, and were first named *mala Persica* (*Persian apples*). In Pliny's time, who lived under the emperor Vespasian, they were still a novelty in Italy: the family of apricots from Armenia came amongst the Romans about the same time.

But now let us go on to plums, your favourite fruit:—Whence do they originate? Some of the inferior kinds are probably European; but those of the finest qualities are from other parts: they have reached us from Damascus, a town of Syria, from which their name is borrowed. In course of time the crusaders brought several species of them into Europe, and prunes most likely were among them.

Your favourite apples and pears now claim, I think, a few observations. We find them first noticed in Greek authors, under the denomination of *Peloponnesian fruits*; they were obtained from that country by the Romans; they found also several kinds of them in Syria and Alexandria. These two fruits, of all others offer the greatest varieties, and no doubt several of them are the result of culture, or of the influence of soil and climate. It is in general a law of nature, that care and attentive management produce in the same species a more considerable num-

ber of shades and varieties, than is met with in the wild uncultivated state, in which much sameness prevails throughout. Man in the rude state of nature is nearly alike every where, and is destitute of those diversities of character that naturally unfold themselves in his civilized condition. Every class of animals and plants, which man renders subservient to his use by cultivation and due care, exhibits beyond comparison greater differences in the same species, more varieties, more families, than those which remain in their native state, remote from and unaided by his fostering care :—it would appear as if Providence had thus meant to encourage and reward activity and labour.

Jack.—But, father, you left off with the apples too soon ; do pray resume their history : I wish you may tell us they are of Swiss or German origin ; they are so useful as a fruit, keep so well through the winter, and may be eaten raw as well as dressed.

Father.—This refreshing fruit, my apple-eating boy, is not a native of Switzerland or Germany, as you desire it should be, but comes to us from more favoured climates ; at least this is the case with the best sorts of them. We have a number of wild pear and apple trees, the fruit of which is crabbed, harsh, and scarcely eatable ; whether they were so originally, or have degenerated, re-

mains to be determined. As I have said, none of these valuable fruits are indigenous or native in the colder parts of Europe: yet this ungrateful and rough climate it is that operates on the European so as to distinguish him from the inhabitants of the other parts of the world, by his intelligence, his fitness for toil, and his skill in agriculture. There exist abundant means and facilities for rendering man effeminate and indolent, but necessity and want stimulate him to industry and useful inventions; and by these blessings the inconveniences of climate are amply compensated.

Jack.—I dare say you are quite right, father;—but tell me where then do apples come from?

Father.—From the eastern countries, my son; and it is to the victories of the Romans we are indebted for some of the best kinds, which have been diversified by experiments, ingrafting, or in other words the influence of soil and labour and intelligence.

Fritz.—Quince and mulberry-trees are the last we have to inquire about; and then, father, we will cease our importunities for the present.

Father.—It is almost time, I must confess. Mulberry-trees are in general from Asia; they have, I presume, been cultivated more for the sake of their leaves, on which silk-

worms feed, than for their fruit: however, it cannot be denied that the juicy berry of the dark-coloured mulberry-tree merits to be held in some estimation, and the white-coloured, whose fruit is small and indifferent, contributes to the production of the finest silk. The quince-tribe must have taken its name from the town of Cydonia in the isle of Crete; the Romans called them *pyrus Cydoniae*. On the quince-tree may be most successfully grafted pear-trees designed to be afterwards planted as espaliers.

Fritz.—But why is it thought right to stunt the growth of a fine tree, and force it to remain diminutive?

Father.—This, in several respects, is useful; wall-trees, being sheltered on one side, bear earlier and more choice fruits; it is easier to defend them from insects; their fruits are more conveniently gathered. The tree, giving less shade, is not so injurious to the culinary plants that are near it.—Are not these substantial reasons?

Jack.—Then I must ask, why are not all trees set in this way?

That would not be a judicious plan by any means; an espalier takes up too much ground; besides, trees with high stems produce more fruit, they form orchards; a crop of hay too may be raised under them,

whereas espaliers serve in general as fences or boundaries in gardens.

This is a compendium of our morning's conversation, in the course of which we finished our work in the completest manner. Towards noon, a keen appetite hastened our return to Falcon's Stream, where we found an excellent and plentiful dinner prepared by our good and patient steward, of which the palm-tree cabbage was the chief dish. We all agreed that to eat of a better or more delicate food was impossible; and Ernest, who had procured it, received the thanks of all the board.

When the sharpness of hunger was appeased, a new subject was introduced which I and my wife had been seriously revolving for some time; she found it difficult and even dangerous to ascend and descend our tree with a rope ladder: we never went there but on going to-bed, and each time felt an apprehension that one of the children, who scrambled up like cats, might make a false step and perhaps be lamed for ever. Bad weather might come on and compel us for a long time together to seek an asylum in our aërial apartment, and consequently to ascend and descend oftener.

My wife addressed me constantly on the subject, incessantly asking whether my in-

ventive genius could not suggest some easier and less perilous mode of getting to our dwelling. I smiled at her implicit confidence that I could accomplish wonders : I assured her that if I were an enchanter or magician no desire of hers should remain ungratified, and that with a single touch of my wand I would instantly produce for her a commodious firm stair-case of perfect workmanship ; but that not being the case, I acknowledged myself at a loss for the means to effect such an accommodation for her : still her reiterated appeals and my own anxiety had often made me reflect if the thing were really possible ? A stair-case on the outside was not to be thought of, the considerable height of the tree rendered that impracticable, as I had nothing to rest it on, and should be at a loss to find beams to sustain it ; but I had for some time formed the idea of constructing winding stairs within the immense trunk of the tree, if it should happen to be hollow, or I could contrive to make it so : Francis had excited this idea in speaking of the bees.

Did you not tell me, dear wife, said I, that there is a hole in the trunk of this enormous tree of ours, in which a swarm of bees is lodged ?

Without doubt, answered she ; it was there little Francis was so severely stung in

attempting to thrust in a stick ; look at it yourself, you will see the bees go in and come out in throngs.

Then, replied I, we have only to examine how far this excavation goes, whether it extends to the roots, and what the circumference of it is ; this done, we shall have gained the first difficult step in favour of our stair-case.

All my children seized the idea with ardour ; they sprang up, and prepared themselves to climb the tops of the roots like squirrels, to succeed in striking at the trunk with axes, and to judge from the sound how far it was hollow ; but they soon paid dearly for their attempt : the whole swarm of bees, alarmed at the noise made against their dwelling, issued forth, buzzing with fury, attacked the little disturbers, began to sting them, stuck to their hair and clothes, and soon put them to flight, bearing along with them their enemies, and uttering lamentable cries. My wife and I had some trouble to stop the course of this uproar, and cover their little wounds with fresh earth to allay the smart. Jack, whose temper was on all occasions rash, had struck exactly upon the bees' nest, and was more severely attacked by them than the rest ; it was necessary, so serious was the injury, to cover the whole of his face with linen. The less active Ernest got up the last, and was the first to run

off when he saw the consequences, and thus avoided any further injury than a sting or two; but some hours elapsed before the other boys could open their eyes or be in the least relieved from the acute pain that had been inflicted. When they grew a little better, the desire of being avenged of the insects that had so roughly used them had the ascendant in their minds: they teased me to hasten the measures for getting every thing in readiness for obtaining possession of their honey. The bees in the mean time were still buzzing furiously round the tree. I prepared tobacco, a pipe, some clay, chisels, hammers, &c. I took the large gourd long intended for a hive, and I fitted a place for it by nailing a piece of board on a branch of the tree; I made a straw roof for the top to screen it from the sun and rain; and as all this took up more time than I was aware of, we deferred the attack of the fortress to the following day, and got ready for a sound sleep, which completed the cure of my little wounded patients.

CHAPTER XXIX.

*Victory over the bees ;—winding stair-case ;
training of various animals ; divers ma-
nufactures ; fountain, &c.*

NEXT morning almost before dawn all were up and in motion ; the bees had returned to their cells, and I stopped the passages with clay, leaving only a sufficient aperture for the tube of my pipe. I then smoked as much as was requisite to stupefy without killing the little warlike creatures. Not having a cap with a mask, such as bee-catchers usually wear, nor even gloves, this precaution was necessary. At first a humming was heard in the hollow of the tree, and a noise like a gathering tempest, which died away by degrees. All was become calm, and I withdrew my tube without the appearance of a single bee. Fritz had got up by me : we then began with a chisel and a small axe to cut out of the tree, under the bees' hole of entrance, a piece three feet square. Before it was entirely separated, I repeated the fumigation, lest the stupefaction produced by the first smoking should have ceased, or the noise we had been just

making revived the bees. As soon as I supposed them quite lulled again, I separated from the trunk the piece I had cut out, producing as it were the aspect of a window, through which the inside of the tree was laid entirely open to view ; and we were filled at once with joy and astonishment on beholding the immense and wonderful work of this colony of insects. There was such a stock of wax and honey, that we feared our vessels would be insufficient to contain it. The whole interior of the tree was lined with fine honey-combs : I cut them off with care, and put them in the gourds the boys constantly supplied me with. When I had somewhat cleared the cavity, I put the upper combs, in which the bees had assembled in clusters and swarms, into the gourd which was to serve as a hive, and placed it on the plank I had purposely raised. I came down, bringing with me the rest of the honey-combs, with which I filled a small cask, previously well washed in the stream. Some I kept out for a treat at dinner ; and had the barrel carefully covered with cloths and planks, that the bees, when attracted by the smell, might be unable to get at it. We then sat round the table, and regaled ourselves plentifully with the delicious and odoriferous treat of the honey. Having finished our meal, my wife put by the remainder ; and I proposed to

my sons to go back to the tree, in order to prevent the bees from swarming again there on being roused from their stupor, as they would not have failed to do, but for the precaution I took of passing a board at the aperture, and burning a few handfuls of tobacco on it, the smell and smoke of which drove them back from their old abode, whenever they attempted to return to it. At length they desisted from approaching it, and became gradually reconciled to their new residence, where their queen no doubt had settled herself. I took this opportunity to relate to my children all I had read in the interesting work by Mr. Huber of Geneva ¹⁷ of the queen-bee, this beloved and respected mother of her subjects, who are all her children, and who take care of and guard her, work for her, nourish the rising swarms, make the cells in which they are to lodge, prepare others of a different structure, as well as nutriment for the young queens destined to lead forth the fresh colonies: and I entered into all those details which celebrated observers, and particularly the one we have just mentioned, have described so interestingly. These accounts highly entertained my youthful auditory, who almost regretted having molested by their depredation the repose of a fine peaceable kingdom that had flourished so long without interruption in the huge trunk.

As to me, it so well suited my intended stair-case, that I readily adopted the prevailing moral amongst conquerors, who dispense with scruples when the seizing a country is convenient to their policy, and I resolved to take full possession next day. In the mean time I advised all to watch during the night, over the whole provision of honey obtained while the bees were torpid, who when recovered would not fail to be troublesome, and come in legions to get back to their property. That we might not be ourselves injured by so much fatigue, we went and threw ourselves on our beds, and in our clothes, to take a short doze before the hour of retreat ; we were lulled to sleep with their buzzing, which had quite ceased when we awoke at the coming on of night ; they had remained quiet in the gourd or suspended in clusters from some branches : without concerning ourselves about them, we went promptly to business ; the cask of honey was emptied into a kettle, except a few prime combs which we kept for daily consumption ; the remainder mixed with a little water was set over a gentle fire and reduced to a liquid consistence, strained and squeezed through a bag, and afterwards poured back into the cask, which was left upright and uncovered all night to cool. In the morning

the wax was entirely separated, and had risen to the surface in a compact and solid cake that was easily removed ; beneath was the purest, most beautiful and delicate honey that could be seen : the cask was then carefully headed again, and put into cool ground near our wine vessels ; and now we promised ourselves an abundant supply of an agreeable article for desserts. This task accomplished, I mounted to revisit the hive, and found every thing in order ; the bees going forth in swarms and returning loaded with wax, from which I judged they were forming fresh edifices in their new dwelling place. I was surprised to see the numbers that had occupied the trunk of the tree find room in the gourd ; but on looking round me, I perceived a part of them collected in a cluster upon a branch, and I thence concluded a young queen was amongst them. On perceiving this, I procured another gourd, into which I shook them and placed it by the former : thus I had the satisfaction of obtaining at an easy rate two fine hives of bees in activity.

We soon after these operations proceeded to examine the inside of the tree. I sounded it with a pole from the opening I had made towards the top ; and a stone fastened to a string served us to sound the bottom, and

thus to ascertain the height and depth of the cavity. To my great surprise the pole penetrated without any resistance to the branches on which our dwelling rested, and the stone descended to the roots. The trunk, it appeared, had wholly lost its pith, and most of its wood internally ; nothing therefore was more practicable than to fix winding stairs in this capacious hollow, that should reach from top to bottom. It seems that this species of tree, like the willow in our climates, receives nourishment through the bark ; for it did not look decayed, and its far-extended branches were luxuriant and beautiful in the extreme. I determined to begin our construction that very day. The undertaking appeared at first beyond our powers ; but intelligence, patience, time, and a firm resolution vanquished all obstacles. We were not disposed to relax in any of these requisites ; and I was pleased to find opportunities to keep my sons in continual action, and their minds and bodies were all the better for exertion. They grew tall, strong, and were too much engaged to regret, in ignoble leisure, any of their past enjoyments in Europe.

We began to cut into the side of the tree, towards the sea, a door-way equal in dimensions to the door of the captain's cabin, which we had removed with all its frame-

work and windows ; by means of which we should at once be guarded against every attack on that side. We next cleared away from the cavity all the rotten wood, and rendered the interior even and smooth, leaving sufficient thickness for cutting out resting-places for the winding stairs, without injuring the bark. I then fixed in the centre, the trunk of a tree ten or twelve feet high and a foot thick, completely stripped of its branches, in order to carry my winding staircase round it : on the outside of this trunk, and the inside of the cavity of our own tree, we formed grooves, so calculated as to correspond with the distances at which the boards were to be placed to form the stairs. These were continued till I had got to the height of the trunk round which they turned. The window I had opened at the top to take out the honey gave light enough. I made a second aperture below, and a third above it, and thus completely lighted the whole ascent. I also effected an opening near our room, that I might more conveniently finish the upper part of the stair-case. A second trunk was fixed upon the first, and firmly sustained with screws and transverse beams. It was surrounded like the other with stairs cut slopingly ; and thus we happily effected the stupendous undertaking of conducting it to the level of our bed-chamber. Here I made

another door directly into it ; and I then found I could add nothing further to my design. If my staircase was not in strict conformity to the rules of architecture, it at least answered the purpose it was built for, that of conducting us with safety and shelter to our nocturnal residence. To render it more solid and agreeable, I closed the spaces between the stairs with plank. I then fastened two strong ropes, the one descending the length of the little tree, the other along the side of the large one, to assist in case of slipping. I fixed the sash-windows taken from the captain's cabin in the apertures we had made to give light to the stairs ; and when the whole was complete, it was so pretty, solid, and convenient, that we were never tired of going up and coming down it ; and I fear I must add, for the sake of truth, with no small admiration of our united talents. I must, however, candidly own, that we succeeded in this arduous attempt by mere dint of efforts, patience, industry, and time ; for it occupied us for several weeks together with no intermission. It more than once reminded me of the wise system of education of the philosopher of Geneva, J.J. Rousseau ; and particularly where he recommends that boys of all classes in society should learn a trade, and especially that of a carpenter. How happy should I have been

in our circumstances to have known this trade myself, and to have taught it to my eldest son ! I cannot too earnestly exhort all fathers to put their sons in early possession of a resource which, though it may not become of the first necessity, has, at all events, the advantage of making a young man stronger, and more dexterous ; of filling up many of the dangerous idle hours of ardent youth ; and of being able, in maturer age, if it be unnecessary to work ourselves, at least to overlook the workmen we employ. I am not an enthusiast for the system of Rousseau, though I admire his style and genius ; yet if humanity were indebted to him for no more than this sagacious counsel, and the felicity conferred by his maxims on early childhood, it would still suffice to make us love and consider him as a benefactor.

But our new acquisition of a handsome staircase did not exclusively occupy the whole of our time ; as in our solitude we had nothing to consider but our own pleasure or convenience, and our daily wants were not subject to the occurrence of other social duties, we saw no occasion for tormenting ourselves with a greater degree of labour in every day than was wholesome for our bodily health. We had no harsh surveyor, no inquisitive examiners ; no troublesome neighbours nor counsellors. If we occasionally

regretted not being members of a large society under just laws and agreements established between societies of men, we more frequently complimented ourselves on not being subjected to this restraint and the inconveniences that arise from it. If we happened now and then to feel the want of some of the high-wrought pleasures of social existence, we were speedily solaced by reflecting that we did not stand in need of money ; that we had no uneasy care about the acquisition of it ; that we excited neither envy, pity, nor censure ; while the imperfection of our achievements, and the trouble they cost us, were richly compensated by the freedom and cheerfulness with which they were executed, ever without altercation, and with united hearts and souls.

I will briefly narrate the few remarkable occurrences that took place during the construction of our staircase.

A few days after the commencement of our stair-case, the two she-goats gave us two kids, and our ewes five lambs ; so that we now saw ourselves in possession of a pretty flock : but lest the domestic animals should follow the example of the ass, and run away from us, I tied a bell to the neck of each. We had found a sufficient number of bells in the vessel, which had been shipped for trading with the savages ; it being one of

the articles they most value. We could now immediately trace a deserter by the sound, and bring it back to the fold.

Next to the winding stairs, my chief occupation was the management of the young buffalo, whose wound in the nose was quite healed, so that I could lead it at will with a cord or stick passed through the orifice, as the Caffrarians do. I preferred the latter, which answered the purpose of a bit; and I resolved to break-in this spirited beast for riding as well as drawing. It was already used to the shafts, and very tractable in them; but I had more trouble in inuring him to the rider, and to wear a girth, having made one out of the old buffalo's hide. I formed a sort of saddle with sail-cloth, and tacked it to the girth. Upon this I fixed a burthen, which I increased progressively. I was indefatigable in the training of the animal, and soon brought it to carry, without fear or repugnance, large bags full of potatoes, salt, and other articles, such as the ass had patiently borne to be loaded with. The monkey was his first rider, who stuck so close to the saddle, that in spite of the plunging and kicking of the buffalo, it was not thrown. Francis was then tried, as the lightest of the family; but throughout his excursion I led the beast with a halter, that it might not throw the child off. Jack now

showed some impatience to mount the animal in his turn. Some restraint was requisite:—I passed the appropriate piece of wood through the buffalo's nose, and tied strong packthread at each end of the stick, bringing them together over the neck of the animal; and I then put this new-fashioned bridle into the hands of the young rider, directing him how to use it. For a time the lad kept his saddle, notwithstanding the repeated jumps of the horned steed; at length a side jolt threw him on the sand, without his receiving much injury. Ernest, Fritz, and lastly myself, got on successively, with more or less effect. His trotting shook us to the very centre, the rapidity of his gallop turned us giddy, and our lessons in horsemanship were reiterated many days before the animal was tamed, and could be rode with either safety or pleasure. At last, however, we succeeded without any serious accident; and the strength and swiftness of our saddled buffalo were prodigious. It seemed to sport with the heaviest loads. My three eldest boys mounted it together now and then, and it ran with them with the swiftness of lightning. By continued attentions it at length became extremely docile: it was not in the least apt to start; and I really felt satisfaction in being thus enabled to make my sons expert riders, so that if they should ever

have horses, they might get on the most restive and fiery without any fear:—none could be compared to our young buffalo; and the ass which I had intended to employ in the same way was far surpassed by this new member of our family. Fritz and Jack, with my instructions, amused themselves in training the animal as horses are exercised in a riding-house; and by means of the little stick through the nose, they were able to do what they pleased with him.

In the midst of all this Fritz did not neglect his eagle; he daily shot some small birds which he gave it to eat, placing them sometimes betwixt the buffalo's horns, sometimes on the back of one of the hens, or of a flamingo, or on a shelf, or at the end of a stick, in order to teach it to pounce like a falcon upon other birds. He taught it to perch on his wrist whenever he called or whistled to it; but some time elapsed before he could trust it to soar without securing its return by a long string, apprehending its bold and wild nature would prompt it to take a distant and farewell flight from us.

Our whole company, including even the inert Ernest, was infected with the passion of becoming instructors. Ernest tried his talents in this way with his monkey; who, it must be confessed, seldom failed to furnish him with work. It was no poor specimen

of the ludicrous to see the lad ; he whose movements were habitually slow and studied, now constrained to skip, and jump, and play a thousand antics with his pupil during training hours, and all the time deeply interested in carrying forward the lesson the grotesque mimic was condemned to learn, of carrying small loads, climbing the cocoa-trees, and to fetch and bring the nuts. He and Jack made a little hamper of rushes, very light : they put three straps to it, two of which passed under the fore, and one between the hind legs of the animal, and were then fastened to a belt in front, to keep the hamper steady on the back of the mischievous urchin. This apparatus was at first intolerable to poor Knips : he gnashed his teeth, rolled on the ground, jumping like a mad creature, and did every thing to get rid of it ; but all in vain, for education was the standing order, and he soon found he must submit. The hamper was left on day and night ; its sole food was what was thrown into it ; and in a short time pug was so much accustomed to the burden, that he began to spit and growl whenever we attempted to take it off, and every thing given to the creature to hold was instantly thrown into it. Knips became at length a useful member of our society ; but he would only obey Ernest, whom he at once loved and feared, thus affording a

proof of at least one of the great ends of all instruction. Jack was less successful with his little jackal, which he had named *Hunter*, hoping that its qualities would justify the name. He made continual attempts to induce the animal to go after game; but for the first six months he advanced no further in the lesson than teaching him to bring what was thrown to it: and when it was dead game, Hunter was sure to devour it on the way, and to bring home the skin alone: but it was nevertheless so pretty and tractable a creature, that I intreated the boy not to relinquish a task that would prove so beneficial to us; and he persevered with considerable zeal.

These different occupations filled up several hours of the day; when, after working at our stairs, we assembled in the evening round our never-failing constant friend, the good mother, to rest ourselves: and forming a little circle, every individual of which was affectionate and cheerful, it was her turn to give us some agreeable and less fatiguing occupation in the domestic concerns of Falcon Stream: such, for example, as endeavouring to improve our candle-manufactory, by blending the berry and the bees-wax, and employing the reed-moulds invented by Jack: but having found some difficulty in taking out the candles when cold, I adopted

the plan of dividing the moulds, cleaning the inside, and rubbing it over with a little butter, to prevent the wax from adhering to it; then to rejoin both halves with a band that could be loosened at pleasure, to facilitate the extraction of the tapers. The wicks gave us most trouble, as we had no cotton. We tried with moderate success the fibrous threads of the karatta, and those of the agava or flame-wood; but each had the inconvenience of becoming a sort of coal or cinder. The production which gave us the most satisfaction was the pith of a species of elder; but it did not, however, lessen our desire to discover the only appropriate ingredient, the cotton-tree. I likewise contrived a method of rendering our candles even and shining, by rolling them between two boards: they now were only distinguishable from those of Europe by a greenish hue. On my observing to my sons that wax was bleached like linen, by spreading it on cloths, and exposing it to the dew and sun, they wished to try the process; but as our green tapers burned remarkably well, bleaching the wax would have been a useless luxury and loss of time, which I could turn to more account in manufacturing our impenetrable boots without seams, of the caoutchouc or elastic gum. I began with a pair for myself; and I encouraged my children to afford a specimen

of their industry, by trying to form some flasks and cups that could not break. They commenced by making some clay moulds, which they covered with layers of gum, agreeably to the instructions I had given them.

In the meanwhile I compactly filled a pair of stockings with sand, and covered them with a layer of clay, which I first dried in the shade, and afterwards in the sun. I then took a sole of buffalo-leather, well beaten, and studded round with tacks, which served me to fix it under the foot of the stocking ; and after this I poured the liquid gum into all the interstices, which on drying produced a close adhesion between the leather and stocking sole. I next proceeded to smear the whole with a coat of resin of a tolerable thickness ; and as soon as this layer was dried on, I put on another, and so on till I had spread on a sufficiency with my brush. After which I emptied the sand, drew out the stocking, removed the hardened clay, shook off the dust, and thus obtained a pair of seamless boots, as finished as if made by the best English workman ; being pliant, warm, soft, smooth, and completely water-proof. I hung them up directly, that they might dry without shrinking. They fitted uncommonly well ; and my four lads were so highly pleased with their appearance, that they

skipped about with joy in requesting me to make each of them a pair. I refrained from any promise, because I wished to ascertain their strength previously, and to compare them with boots made out of mere buffalo-leather. Of these I at once began a pair for Fritz, with a piece of the slaughtered buffalo's skin. They gave far more trouble than those manufactured with the caoutchouc, which I used to cover the seams and render them less pervious to water. The work turned out very imperfect, and so inferior to my incomparable boots, that Fritz wore them reluctantly; and the more so, as his brothers shouted with laughter at the difficulty he had to run in them. My boys had succeeded tolerably well with their new ware, though still imperfect; but as a first essay performed by tyro-artists, I was satisfied with their productions.

We had also been engaged in the construction of our fountain, which afforded a perpetual source of pleasure to my wife, and indeed to all of us. In the upper part of the stream we built with stakes and stones a kind of dam, that raised the water sufficiently to convey it into the palm-tree troughs; and afterwards, by means of a gentle slope, to glide on contiguous to our habitation, where it fell into the tortoise-shell basin, which we had elevated on stones to a certain

height for our convenience ; and it was so contrived that the redundant water passed off through a cane pipe fitted to it. I placed two sticks athwart each other for the gourds, that served as pails, to rest on ; and we thus produced, close to our abode, an agreeable fountain, delighting with its rill, and supplying us with a pure crystal fluid, and such as we frequently could not get when we drew our water from the bed of the river, which was often blended with the leaves and earth fallen into it, or rendered turbid by our water-fowls. The only inconvenience was, that the water flowing in this open state through narrow channels in a slender stream, was heated, and not refreshing when it reached us. I resolved to obviate this inconvenience at my future leisure, by employing, instead of the uncovered conduits, large bamboo-canes fixed deep enough in the ground to keep the water cool. In waiting the execution of this design, we felt pleasure in the new acquisition ; and Fritz, who had suggested the notion, received his tribute of praise from all.

CHAPTER XXX.

*The wild ass ;—difficulty in breaking it ;—
the heath-fowl's nest.*

WE were scarcely up one morning, and had got to work in putting the last hand to our winding stair-case, when we heard at a distance two strange peculiar kind of voices, that resembled the howlings of wild beasts, mixed with hissings and sounds of some creature at its last gasp, which I was at a loss to explain, and I was not without uneasiness ; our dogs too pricked up their ears, and seemed to whet their teeth for a sanguinary combat with a dangerous enemy.

From their looks we judged it prudent to put ourselves in a state of defence ; we loaded our guns and pistols, placed them together within our castle in the tree, and prepared to repel vigourously any hostile attack from that quarter. The howlings having ceased an instant, I descended from our citadel, well armed, and put on our two faithful guardians their spiked collars and side-guards : I assembled our cattle about the tree to have them in sight, and I reascended to

look around for the enemy's approach. Jack wished they might be lions—I should like, said he, to have a near view of the king of beasts, and should not be in the least afraid of him, for lions are deemed generous!

I do not advise you, answered I, to trust the report, though you may not fear a lion when elevated as you are forty feet above them: but these are not lions; their roarings are more lengthened, majestic, and fill all other animals that hear them with fear and trembling; I do not observe this effect amongst ours.

Fritz.—I rather surmise they are a troop of jackals, disposed to avenge the death of their comrades.

Ernest.—It is not the jackal's cry: I am more inclined to fear they are hyenas, whose howling must, one would think, be as frightful as their looks.

Francis.—Now I think they are savages come to eat their prisoners on our island; I wish we could save them, and get a good *Man Friday* as Robinson Crusoe did.

Whatever it is, children, let us not yield to fear or imagination; we are in safety here...

At this very instant the howlings were renewed and quite close to us. Fritz got as near the spot as he could, listened attentively and with eager looks, then threw down his gun and burst into a loud laughter, exclaim-

ing: Father, it is our ass—the deserter comes back to us, chanting the hymn of return: listen! do you not hear his melodious brayings in all the varieties of the gamut?—We lent an ear; our doubts ceased, and we felt somewhat mortified at our premature alarms and preparations of defence against such an ignoble foe.

I on my part, however, was soon reconciled to the offence against our pride, since it also insured our safety: and a fresh roar, in sounds unquestionable, raised loud peals of laughter among us; and then followed the usual train of jests and mutual banter at the alarm we had one and all betrayed. Shortly after, we had the satisfaction of seeing among the trees our old friend Grizzle, moving towards us leisurely, and stopping now and then to browse; but to our great joy we perceived in his train one of the same species of very superior beauty, and when it was nearer I knew it to be a fine onagra¹⁹ or wild ass, which I conceived a strong desire to possess, though at the same time aware of the extreme difficulty there would be in taming and rendering him subject to the use of man. Some writers who have described it under the name of the *Æigitai*, (or long-eared horse,) given it by the Tartars, affirm that the taming it has been ever found absolutely impracticable; but my mind furnished an idea

on the subject which I was resolved to act on, if I got possession of the handsome creature. Without delay I descended the ladder with Fritz, desiring his brothers to keep still ; and I consulted my privy-counsellor on the means of surprising and taking the stranger captive. I got ready, as soon as possible, a long cord with a running knot, one end of which I tied fast to the root of a tree ; the noose was kept open with a little stick slightly fixed in the opening, so as to fall of itself on the cord being thrown round the neck of the animal, whose efforts to escape would draw the knot closer. I also prepared a piece of bamboo about two feet long, which I split at the bottom, and tied fast at top, to serve as nippers. Fritz attentively examined my contrivance, without seeing the use of it. Prompted by the impatience of youth, he took the ball-sling and proposed aiming at the wild ass with it, which he said was the shortest way of proceeding. I declined adopting this Patagonian method, fearing the attempt might fail, and the beautiful creature avail itself of its natural velocity to evade us beyond recovery : I therefore told him my project of catching it in the noose, which I gave him to manage, as being nimbler and more expert than myself. The two asses drew nearer and nearer to us. Fritz, holding in his hand the open noose, moved soft-

ly on from behind the tree where we were concealed, and advanced as far as the length of the rope allowed him: the onagra was extremely startled on perceiving a human figure; it sprung some paces backward, then stopped as if to examine the unknown form; but as Fritz now remained quite still, the animal resumed its composure and continued to browse. Soon after he approached the old ass, hoping that the confidence that would be shown by it, would raise a similar feeling in the stranger: he held out a handful of oats mixed with salt; our ass instantly ran up to take its favourite food, and greedily devoured it; this was quickly perceived by the other. It drew near, raised its head, breathed strongly and came up so close, that Fritz, seizing the opportunity, succeeded in throwing the rope round its neck; but the motion and stroke so affrighted the beast that it instantly sprang off; it was soon checked by the cord, which in compressing the neck almost stopped its breath: it could go no further, and after many exhausting efforts, it sunk panting for breath upon the ground. I hastened to loosen the cord and prevent its being strangled. I then quickly threw our ass's halter over its head; I fixed the nose in my split cane, which I secured at the bottom with packthread. Thus I succeeded in subduing the first alarm of this wild animal, as far-

riers shoe a horse for the first time. I wholly removed the noose that seemed to bring the creature into a dangerous situation ; I fastened the halter with two long ropes to two roots near us, on the right and left, and let the animal recover itself, noticing its actions, and devising the best way to tame it in the completest manner.

The rest of my family had by this time come down from the tree and beheld the fine creature with admiration, its graceful shape and well-turned limbs, which placed it so much above the ass, and nearly raised it to the noble structure of the horse ! In a few moments the onagra got up again, struck furiously with its foot, and seemed resolved to free itself from all bonds: but the pain of its nose, which was grasped and violently squeezed in the bamboo, forced it to lie down again. My eldest son and I now gently undid the cords, and half led, half dragged it, between two roots closely connected, to which we fastened it afresh so as to give the least scope for motion, and thus render its escape impracticable, whilst it enabled us to approach securely and examine the valuable capture we had made. We also guarded against master Grizzle playing truant again, and tied him fast with a new halter, confining its fore legs with a rope. I then fastened it and the wild ass side by side, and put before both

plenty of good provender to solace their impatience of captivity.

We had now the additional occupation of training the onagra for our service or our pleasure as might turn out to be most practicable: my boys exulted in the idea of riding it, and we repeatedly congratulated each other on the good fortune which had thus resulted from the flight of 'our ass. Yet I did not conceal that we should have many difficulties to encounter in taming it, though it seemed very young and not even to have reached its full growth. But I was inclined to think proper means had not been hitherto adopted, and that the hunters, almost as savage as the animals themselves, had not employed sufficient art and patience, being probably unconscious of the advantages of either. I therefore determined to resort to all possible measures: I let the nippers remain on its nose, which appeared to distress him greatly, though we could plainly perceive their good effect in subduing the creature, for without them no one could have ventured to approach him; I took them off however at times when I gave it food, to render eating easier, and I began, as with the buffalo, by placing a bundle of sail-cloth on its back to inure it to carry. When accustomed to the load, I strove to render the beast still by degrees

more docile, by hunger and thirst; and I observed with pleasure that when it had fasted a little and I supplied it with food, its look and actions were less wild. I also compelled the animal to keep erect on its four legs, by drawing the cords closer that fastened it to the roots, in order to subdue gradually by fatigue its natural ferocity. The children came in turns to play with it and scratch its ears gently, which were remarkably tender; and it was on these I resolved to make my last trial if all other endeavours failed. For a long time we despaired of success; the onagra made furious starts and leaps when any of us went near it, kicked with its hind feet, and even attempted to bite those who touched it. This obliged me to have recourse to a muzzle, which I managed with rushes, and put on when it was not feeding. To avoid being struck by its hind feet, I partially confined them by fastening them to the fore feet with cords, which however I left moderately loose, that we might not encroach too much upon the motion necessary for its health. It was at length familiarized to this discipline, and was no longer in a rage when we approached, but grew less impatient daily, and bore to be handled and stroked.

At last we ventured to free it by degrees from its restraints and to ride it as we had done with the buffalo, still keeping the forc

feet tied ; but notwithstanding this precaution and every preceding means, it proved as fierce and unruly as ever for the moment. The monkey, who was first put on its back, held on pretty well by clinging to its mane, from which it was suspended as often as the onagra furiously reared and plunged ; it was therefore for the present impracticable for either of my sons to get upon it. The perverse beast baffled all our efforts, and the perilous task of breaking it was still to be persevered in with terror and apprehension. In the stable it seemed tolerably quiet and gentle ; but the moment it was in any degree unshackled, it became wholly ferocious and unmanageable.

I was at length reduced to my last expedient, but not without much regret, as I resolved, if it did not answer, to restore the animal to full liberty. I tried to mount the onagra, and just as in the act of rearing up violently to prevent me, I seized with my teeth one of the long ears of the enraged creature, and bit it till it bled ; instantly it stood almost erect on its hind feet, motionless, and as stiff as a stake ; it soon lowered itself by degrees, while I still held its ear between my teeth. Fritz seized the moment and sprung on its back ; Jack, with the help of his mother, did the same, holding by his brother, who, on his part, clung to the girth.

When both assured me they were firmly seated, I let go the ear : the onagra made a few springs less violent than the former, and checked by the cords on its feet, it gradually submitted, began to trot up and down more quietly, and ultimately grew so tractable that riding it became one of our chief pleasures. My lads were soon expert horsemen ; and their horse, though rather long-eared, was very handsome and well broken in. Thus patience on our parts conquered a serious difficulty, and gained for us a proud advantage.

In the name of goodness, said my wife to me one evening, after one of our first essays, where did you learn this strange notion of biting the animal's ear ? I learned it, replied I, from a horse-breaker whom I fell in with by chance : he had lived long in America and carried on the skin-trade with the savages, to whom he took in exchange various European goods. He employed in these journeys, half-tamed horses of the southern provinces of that country, which are caught in snares or with nooses. They are at first unruly and resist burthens, but as soon as the hunter bites one of their ears they become mild and submissive ; and they become so docile, that any thing may be done with them. The journey is continued through forests and over heaths to the dwellings of

the savages; skins are given in barter for the goods brought them, with which the horses are re-loaded. They set out again on their return, and are directed by the compass and stars to the European settlements, where they profitably dispose of their skins and horses.—Till now I thought this singular mode of taming a wild beast fabulous, but the young onagra convinces me of the truth of the accounts I heard. In a few weeks the onagra was so effectually tamed, that we all could mount it without fear: I still however kept his two fore legs confined together with the cord, to moderate the extreme swiftness of its running. In the room of a bit, I contrived a curb, and with this and a good bite applied, as wanted, to the ear, it went to right or left at the will of the rider. Now and then I mounted it myself, and not without an emotion of pride at my success in subduing an animal that had been considered by travellers and naturalists as absolutely beyond the power of man to tame. But how superior was my gratification in seeing Fritz spring at any time on the creature's back and do what he pleased with it, drive along our avenue like lightning, in depicting to my fond imagination that even on a desert unknown island, I could qualify my dear children to re-enter society and become in such respects its ornament! in be-

holding their physical strength and native graces unfold themselves, and these keeping pace with the improvement of their intelligence and their judgement ; and in anticipating that, buried as they were in a distant retreat, far from the tumult of the world, and all that excites the passions, their sentiments would be formed in exact conformity to the paternal feelings of my heart ! I had not lost hope that we should one day return to Europe in some vessel chance might throw on our coast, or even with the aid of our pinnace ; but I felt at the same time, and my wife still more, that we should not leave the island without a lively regret, and I determined to pursue my arrangements as if we were to close existence on a spot where all around us prospered.

During the training of our horse, which we named *Light-foot*, a triple brood of our hens had given us a crowd of little feathered beings ; forty of these, at least, were chirping and hopping about us, to the great satisfaction of my wife, whose zealous care of them sometimes made me smile. Most women's hearts are so imbued with maternal love as to excite in them a fondness for whatever bears a similitude to infancy. Thus, my admirable partner, far from complaining of the trouble such a number of young chickens gave her, took delight in it, and was constantly admiring

them ; yet her care and admiration did not prevent her appropriating a part of them to the table, and sending the remainder in small colonies to feed and breed in the desert, where we could find them as they were wanted for our use.

Here, she said, are animals of real utility in a family, far beyond your monkeys, jackals, and eagles, that do nothing but eat, and are unfit to be eaten. The buffalo was not found fault with, because it brought her the provisions, nor the onagra, on which she liked to see her sons gallop. From the time we had trained it to this, the rough-paced buffalo that shook us to pieces was no longer used for riding, but kept entirely for drawing.

This increase of our poultry reminded us of the necessity of an undertaking we had long thought of, and was not in prudence to be deferred any longer ; this was the building between the roots of our great tree, covered sheds for all our bipeds and quadrupeds. The rainy season, which is the winter of these countries, was drawing near, and to avoid losing most of our stock it was requisite to shelter it.

We began by forming a kind of roof above the arched roots of our tree, and employed bamboo canes for the purpose ; the longest and strongest supported the roofing in the place of columns, the smaller more

closely united and composed the roof itself. I filled up the interstices with moss and clay, and I spread over the whole a thick coat of tar. By these means I formed a compact and solid covering, capable of bearing pressure. I then made a railing round it, which gave the appearance of a pretty balcony, under which, between the roots, were various stalls sheltered from rain and sun, that could be easily shut and separated from each other by means of planks nailed upon the roots ; part of them were calculated to serve as a stable and yard, part as an eating-room, a store-room, &c., and as a hay-loft to keep our hay and provisions dry in.

This work was soon completed; but afterwards it was necessary to fill these places with stores of every kind for our supply throughout the wet season. In this task we engaged diligently, and went daily here and there with our cart to collect every thing useful, and that might give us employment whilst the weather confined us to the house.

One evening on our return from digging up potatoes, as our cart loaded with bags, drawn by the buffalo, ass and cow, was gently rolling along, seeing still a vacant place in the vehicle, I advised my wife to go home with the two youngest boys whilst I went round by the wood of oaks with Ernest and Fritz to gather as many sweet acorns as

we could find room for. We had still some empty sacks. Ernest was accompanied by his monkey, who seldom left him; and Fritz, horseman like, was on his dear onagra, which he had appropriated to himself, inasmuch as he had helped to take and tame it, and indeed because he knew how to manage it better than his brothers. Ernest was too lazy, and preferred walking at ease with the monkey on his shoulder, and the more so because it spared him the trouble of gathering fruit. Jack was too giddy to be trusted alone on the horse, though he often got up behind his brother, and Francis still too little to attempt mounting it. Notwithstanding the onagra was so well broken in for riding, it continued to be very mettlesome and resitive in the shafts, to which we could not inure it; but occasionally it submitted to our putting a loaded sack or two on its back; but we could seldom prevail even in this, without Fritz being seated in front; he would then take them to the house, and thus was rendered of some general use.

When we reached the oaks Lightfoot was tied to a bush, and we set actively to work to gather the acorns that had dropped from the trees. While all were busily employed, the monkey quitted its master's shoulder and skipped unperceived into an adjoining bush. It had been there some time when we

heard on that side the loud cries of birds and flapping of wings, and this assured us a sharp conflict was going on betwixt master Knips and the inhabitants of the bushes. I dispatched Ernest to reconnoitre. He went stoutly towards the place, and in an instant we heard him exclaim, Come quickly, father! a fine heath-fowl's nest full of eggs; Mr. Knips, as usual, wished to make a meal of them; the hen and he are fighting for it: come quick, Fritz, and take her; I am holding greedy-chops as well as I can.

Fritz ran up directly, and in a few moments brought out alive the male and female heath-fowl, both very beautiful; the cock finely collar'd, similar to one he had killed on a former occasion, not without much regret on my part. I was rejoiced at this discovery, and helped my son to prevent their escape by tying their wings and feet, and holding them while he returned to the bush for the eggs. And now Ernest came forward driving the monkey before him, and carrying his hat with the utmost care: he had stuck his girdle full of narrow sharp-pointed leaves, in shape like a knife-blade, which reminded me of the production named sword-grass; but I did not pay much attention, as I was too busily engaged in our egg-hunt, and considered his decoration as childishness. On coming up to me he uncovered his hat, and

gave it me in a transport of joy, crying out, Here, dear father, here are some heath-fowl's eggs; I found them in a nest so well concealed under these long leaves that I should not have observed them had not the hen, in defending herself against the monkey, scattered them about. I am going to take them home, they will please my mother; and these leaves will so amuse Francis, they are like swords, and will be the very thing he will like for a play-thing. I applauded Ernest's attention to both, and I encouraged him and Fritz to be thus ever considerate for the absent, so as to prove they could never be forgotten. The kindnesses conferred on those who are separated from us have in themselves more merit, and are more valued, than those which are personally received. It was now time to think of moving homeward: my two sons filled the bags with acorns and put them on Lightfoot; Fritz mounted, Ernest carried the eggs, I took charge of the hen, and we proceeded to Falcon's Stream followed by our train-waggon. Our good cattle were in such complete subjection that it was only necessary to speak to them. I remarked Ernest often applying his ear to the hat which held the eggs, as if he thought the little ones were near coming forth; I listened also, and observed some shells already broken and the young protruding:

we were overjoyed at our good luck, and Fritz could not refrain from trotting on briskly to bear the tidings to his dear mother: but he went rather faster than he intended on setting out: he had taken a handful of the pointed leaves with him, which he whisked before the ears and eyes of the onagra, till the animal was frightened, lost all restraint, and darted forward with him like a shot, hurrying away bags and rider at such a rate that we soon lost sight of them. Anxious for his safety, we followed as fast as possible, though out of sight of him all the way; but on our arrival at Falcon's Stream we had the satisfaction of finding him there in perfect safety. His mother, indeed, had been somewhat alarmed in seeing him dash in like a thunderbolt, but firmly seated betwixt the bags on master Lightfoot, who well deserved his name on this occasion, and who stopped short with wonderful precision at his stable door. Our first care was to examine the eggs: the female bird was too frightened and wild to sit upon them: fortunately we had a hen that was hatching; her eggs were immediately removed, and the new ones put in their place: the female heath-fowl was put into the parrot's cage, and hung up in the room to accustom it to our society. In less than three days all the chickens were hatched, they kept close to their foster-

mother, and ate greedily a mixture of sweet acorns bruised in milk, such as we gave our tame poultry: as they grew up I plucked out the large feathers of their wings, lest they should naturally take flight; but they and their real parent gradually became so domesticated, that they daily accompanied our feathered stock in search of food, and regularly came back at night to the roost I had prepared for them, and in which this little new colony of feathered beings seemed to delight.

CHAPTER XXXI.

Flax, and the rainy season.

FRANCIS for a short time was highly amused with his sword-leaves, and then like all children, who are soon tired of their toys, he grew weary of them, and they were thrown aside. Fritz picked up some of them that were quite soft and withered; he held up one which was pliable as a ribband in the hand: My little fellow, said he to his brother, you can make whips of your sword-grass, take up the leaves and keep them for this purpose, they will be of use in driving your goats and sheep. It had been lately decided that it should be the business of Francis to lead these to pasture.

Well then, help me to make them, said the child. They sat down together. Francis divided the leaves into long narrow slips, and Fritz ingeniously platted them into whip-cords. As they were working, I saw with pleasure the flexibility and strength of the bands; I examined them more closely, and found they were composed of long fibres or filaments; and this discovery led me to surmise that this supposed sword-grass

might be a very different thing, and not improbably the flax-plant of New Zealand, called by naturalists *Chlomidia*, and by others *Phormion*¹⁹. This was a valuable discovery in our situation: I knew how much my wife wished for the production, and that it was the article she felt most the want of; I therefore hastened to communicate the intelligence to her, upon hearing which she expressed the liveliest joy: This, said she, is the most useful thing you have found; I entreat you, lose not a moment in searching for more of these leaves, and bring me the most you can of them; I will make you stockings, shirts, clothes, thread, ropes..... In short, give me flax, looms, and frames, and I shall be at no loss in the employment of it. I could not help smiling at the scope she gave to her imagination, on the bare mention of flax, though so much was to be done between the gathering the leaves and having the cloth she was already sewing in idea. Fritz whispered a word in Jack's ear; both went to the stable, and without asking my leave, one mounted Lightfoot, the other the buffalo, and galloped off towards the wood so fast that I had no time to call them back; they were already out of sight: their eagerness to oblige their mother in this instance pleaded their forgiveness, and I suffered them to go on without following them,

purposing to proceed and bring them back if they did not soon return.

In waiting for them I conversed with my wife, who pointed out to me with all the animation and spirit of useful enterprise so natural to her character, the various machinery I must contrive for spinning and weaving her flax for the manufactory of cloths, with which she said she should be able to equip us from head to foot ; in speaking of which, her eyes sparkled with the love of doing good, the purest kind of joy, and I promised her all she desired of me.

In a quarter of an hour our deserters came back on a full trot, and I was pleased to see them again ; like true hussars, they had foraged the woods, and heavily loaded their cattle with the precious plant, which they threw at their mother's feet with joyful shouts. We could not blame their abrupt departure. Jack made us laugh in recounting with his accustomed vivacity and drollery at what a rate he had trotted his buffalo to keep up with Lightfoot, and how his great horned horse had thrown him by a side leap ; yet that notwithstanding these, he and his buffalo, as in duty and allegiance bound, were, as ever, at the entire command of their acknowledged queen. Well, said I, you shall then all assist her with consummate

diligence in preparations for the work she is about to engage in, and previously in steeping the flax.

Fritz.—How is flax prepared, father, and what is meant by steeping it?

Father.—Steeping flax, or hemp, is exposing it in the open air, by spreading it on the ground to receive the rain, the wind, and the dew, in order in a certain degree to liquefy the plant; by this means the ligneous or cortical parts of the flax are separated with more ease from the fibrous; a kind of vegetable glue that binds them is dissolved, and it can then be perfectly cleaned with great facility, and the parts selected which are fit for spinning.

Fritz.—But may not the natural texture of this part be destroyed by exposing it so long to wet?

Father.—That certainly may happen when the process is managed injudiciously, and the flax not duly turned; the risk, however, is not great, the fibrous part has a peculiar tenacity, which enables it to resist longer the action of humidity; flax may be even steeped altogether in water without injury. Many think this the best and quickest method, and I am of their opinion.

My wife coincided with me, especially in the sultry climate we inhabited: she therefore proposed to soak the flax in Flamingo

Marsh, and to begin by making up the leaves in bundles, as they do hemp in Europe. We agreed to her proposal, and joined in this previous and necessary preparation of the flax during the rest of the day.

Next morning the ass was put to the small light car, loaded with bundles of leaves; Francis and the monkey sat on them, and the remainder of the family gaily followed with shovels and pickaxes. We stopped at the marsh, divided our large bundles into smaller, which we placed in the water, pressing them down with stones and leaving them in this state till our sovereign should direct us to remove and set them in the sun to dry, and thus render the stems soft and easy to peel. In the course of this work we noticed with admiration the instinct of the flamingoes in building their cone-shaped nests above the level of the marsh, each nest having a recess in the upper part, in which the eggs are securely deposited, while the contrivance enables the female to sit with her legs in the water: the nest is of clay closely cemented, so as to resist all danger from the element till the young can swim.

A fortnight after, my wife told us the flax was sufficiently steeped. We then took it out of the water, and spread it on the grass in the sun, where it dried so well and rapidly that we were able to load it on our cart the

same evening, and carry it to Falcon's Stream, where it was put by till we had time to attend further to it, and make beetles, wheels, reels, carding-combs, &c., as required by our expert and skilful flax-manufacturer. It was thought best to reserve this task for the rainy season, and to get ready what would be then necessary during our confinement within doors. Uninformed as we were as to the duration of this season, it was highly important to lay in a competent stock of provisions for ourselves and for all the animals. Occasional slight showers, the harbingers of winter, had already come on ; the temperature, which hitherto had been warm and serene, became gloomy and variable ; the sky was often darkened with clouds, the stormy winds were heard, and warned us to avail ourselves of the favourable moment to collect every thing that would be wanted.

Our first care was to dig up a full supply of potatoes and yams for bread, with plenty of cocoa-nuts, and some bags of sweet acorns. It occurred to us while digging, that the ground being thus opened and manured with the leaves of plants, we might sow in it to advantage the remainder of our European corn. Notwithstanding all the delicacies this stranger land afforded us, the force of habit still caused us to long for the bread we had been fed with from childhood : we had not

yet laid ourselves out for regular tillage, and I was inclined to attempt the construction of a plough of some sort as soon as we had a sufficient stock of corn for sowing. For this time, therefore, we committed it to the earth with little preparation: the season, however, was proper for sowing and planting, as the ensuing rain would moisten and swell the embryo grain, which otherwise would perish in an arid burning soil. We accordingly expedited the planting of the various palm-trees we had discovered in our excursions, at Tent House, carefully selecting the smallest and the youngest. In the environs we formed a large handsome plantation of sugar canes, so as to have hereafter every thing useful and agreeable around us, and thus be dispensed from the usual toil and loss of time in procuring them.

These different occupations kept us several weeks in unremitting activity of mind and body; our cart was incessantly in motion, conveying home our winter stock; time was so precious that we could not even make regular meals, and limited ourselves to bread, cheese, and fruits, in order to shorten them, to return quickly to our work, and dispatch it before the bad season should set in.

Unfortunately, the weather changed sooner than we had expected, and than, with all our care, we could be prepared for: before we had

completed our winter establishment, the rain fell in such heavy torrents that little Francis, trembling, asked me whether father Noah's deluge was coming on again ; and I could not myself refrain from painful apprehension in surmising how we should resist such a body of water, that seemed to change the whole face of the country into a perfect lake.

The first thing to be done, and which gave us all sensations of deep concern, was to remove without delay our aerial abode, and to fix our residence at the bottom of the tree, between the roots and under the tarred roof I had erected ; for it was no longer possible to remain above, on account of the furious winds that threatened to bear us away, and deluged our beds with rain through the large opening in front, our only protection here being a piece of sail-cloth, which was soon dripping wet and rent to pieces. In this condition we were forced to take down our hammocks, mattresses, and every article that could be injured by the rain ; and most fortunate did we deem ourselves in having made the winding stairs, which sheltered us during the operation of the removal. The stairs served afterwards for a kind of lumber-room ; we kept all in it we could dispense with, and most of our culinary vessels, which my wife fetched as she happened to want them. Our little sheds between the roots, constructed

for the poultry and the cattle, could scarcely contain us all; and the first days we passed in this manner were painfully embarrassing, crowded all together, and hardly able to move in these almost dark recesses, which the foetid smell from the close-adjoining animals rendered almost insupportable: in addition, we were half stifled with smoke whenever we kindled a fire, and drenched with rain when we opened the doors. For the first time, since our disaster, we sighed for the comfortable houses of our dear country:—but what was to be done! we were not there, and losing our courage and our temper would only increase the evil. I strove to raise the spirits of my companions, and obviate some of the inconveniences. The now doubly-precious winding stair was, as I have said, every way useful to us; the upper part of it was filled with numerous articles that gave us room below; and as it was lighted and sheltered by windows, my wife often worked there, seated on a stair, with her little Francis at her feet. We confined our live-stock to a smaller number, and gave them a freer current of air, dismissing from the stalls those animals that from their properties, and being natives of the country, would be at no loss in providing for themselves. That we might not lose them altogether, we tied bells round their necks; Fritz and I sought and drove

them in every evening that they did not spontaneously return. We generally got wet to the skin and chilled with cold, during the employment, which induced my wife to contrive for us a kind of clothing more suitable to the occasion ; she took two seamen's shirts from the chest we had recovered from the wreck ; and then, with some pieces of old coats, she made us a kind of cloth hoods joined together at the back, and well formed for covering the head entirely : we melted some elastic gum, which we spread over the shirts and hoods ; and the articles thus prepared answered every purpose of water-proof overalls, that were of essential use and comfort to us. Our young rogues were ready with their derision the first time they saw us in them ; but afterwards they would have been rejoiced to have had the same : this, however, the reduced state of our gum did not allow, and we contented ourselves with wearing them in turn, when compelled to work in the rain, from the bad effects of which they effectually preserved us.

As to the smoke, our only remedy was to open the door when we made a fire ; and we did without as much as we could, living on milk and cheese, and never making a fire but to bake our cakes : we then availed ourselves of the opportunity to boil a quantity of potatoes and salt meat enough to last us

a number of days. Our dry wood was also nearly expended, and we thanked Heaven the weather was not very cold; for had this been the case our other trials would have much increased. A more serious concern was our not having provided sufficient hay and leaves for our European cattle, which we necessarily kept housed to avoid losing them; the cow, the ass, the sheep, and the goats, the two last of which were increased in number, required a large quantity of provender, so that we were ere long forced to give them our potatoes and sweet acorns, which by the by they found very palatable, and we remarked that they imparted a delicate flavour to their milk;—the cow, the goats, and even the sheep, amply supplied us with that precious article: milking, cleaning the animals and preparing their food, occupied us most of the morning, after which we were usually employed in making flour of the manioc root, with which we filled the large gourds, which were previously placed in rows. The gloom of the atmosphere and our low windowless habitation sensibly abridged our daylight; fortunately, we had laid in a huge store of candles, and felt no want of that article: when darkness obliged us to light up, we got round the table, when a large taper fixed on a gourd gave us an excellent light, which enabled my wife to pursue her

occupation with the needle, while I, on my part, was forming a journal and recording what the reader has perused of the narrative of our shipwreck and residence in this island, assisted from time to time by my sons and their admirable mother, who did not cease to remind me of various incidents belonging to the story. To Ernest, who wrote a fine hand, was intrusted the care of writing off my pages in a clear legible character ; Fritz and Jack amused themselves by drawing from memory the plants and animals which had most struck their observation ; while one and all contributed to teach little Francis to read and write : we concluded the day with a devotional reading in the Holy Bible, performed by each in turn, and we then retired to rest, happy in ourselves, and in the innocent and peaceful course of our existence. Our kind and faithful steward often surprised us agreeably on our return from looking after the cattle, by lighting up a faggot of dried bamboo, and quickly roasting by the clear and fervent heat it produced, a chicken, pigeon, duck, or penguin from our poultry-yard, or some of the thrushes we had preserved in butter, which were excellent, and welcomed as a treat to reward extraordinary toil. Every four or five days the kind creature made us new fresh butter in the gourd-churn ; and this with some deliciously fragrant honey

spread on our manioc cakes, formed a collation that would have raised the envy of European epicures. These unexpected regales represented to our grateful hearts so many little festivals, the generous intention of which made us forget our bad accommodations and confinement.

The fragments of our meals belonged in right to our domestic animals, as part of the family. We had now four dogs, the young jackal, the eagle, and the monkey, to feed ; they relied with just confidence on the kindness of their respective masters, who certainly would have deprived themselves to supply the wants of their helpless dependents. Francis had taken under his mighty protection the two little bull-dogs ; my wife Ponto, and I the brave Turk :—thus each had his attendant, of which he took care, and no one was dispensed from the offices of tenderness and vigilance. If the buffalo, the onagra, and pig had not found sustenance abroad, they must have been killed or starved, and that would have given us much pain. In the course of these discomorts it was unanimously resolved on, that we would not pass another rainy season exposed to the same evils ; even my beloved consort, who felt such a predilection for the abode at Falcon's Stream, was frequently a little ruffled and out of temper with our inconvenient si-

tuation, and insisted more than any of us on the propriety of building elsewhere a more spacious winter residence: she wished, however, to return to our castle in the tree every summer, and we all joined with her in that desire. The choice of a fresh abode now engrossed our attention, and Fritz in the midst of consultation came forward triumphantly with a book he had found in the bottom of our clothes' chest. Here, said he, is our best counsellor and model, *Robinson Crusoe*; since Heaven has destined us to a similar fate, whom better can we consult? as far as I remember, he cut himself an habitation out of the solid rock: let us see how he proceeded; we will do the same and with greater ease, for he was alone; we are six in number, and four of us able to work. Well spoken, son, said I: this activity and courage give me pleasure; let us then strive to be as ingenious as *Robinson Crusoe*.

And why not? observed Jack—Have we not an island, rocks, and tools from abroad as good as he had, and, as brother Fritz says, more hands to use them?

We assembled, and read the famous history with an ardent interest; it seemed though so familiar, quite new to us: we entered earnestly into every detail and derived considerable information from it, and never failed to feel lively gratitude towards God

who had rescued us all together, and not permitted one only of us to be cast a solitary being on the island. The occurrence of this thought produced an overwhelming sense of affection among us, and we could not refrain from throwing ourselves into each others arms, embracing repeatedly, and the pathetic scene ended in mutual congratulations.

Francis repeated his wish to have a *Man Friday* ; Fritz thought it better to be without such a companion, and to have no savages to contend with. Jack was for the savages, warfare and encounters. The final result of our deliberations was to go and survey the rocks round Tent-House, and to examine whether any of them could be excavated for our purpose.

Our last job for the winter, undertaken at my wife's solicitation, was a beetle for her flax and some carding-combs. I filed large nails till they were even, round, and pointed ; I fixed them at equal distances in a sheet of tin, and raised the sides of it like a box ; I then poured melted lead between the nails and the sides, to give firmness to their points, which came out four inches. I nailed this tin on a board, and the machine was fit for work. My wife was impatient to use it ; and the drying, peeling, and spinning her flax, became from this time a source of inexhaustible delight.

CHAPTER XXXII.

Spring ;—spinning ;—salt mine.

I CAN hardly describe our joy when, after many tedious and gloomy weeks of rain, the sky began to brighten, the sun to dart its benign rays on the humid earth, the winds to be lulled, and the state of the air became mild and serene. We issued from our dreary hovels with joyful shouts, and walked round our habitation breathing the enlivening balmy ether, while our eyes were regaled with the beauteous verdure beginning to shoot forth on every side. Reviving nature opened her arms, every creature seemed re-animated, and we felt the genial influence of that glorious luminary which had been so long concealed from our sight, now returned like a friend who has been absent, to bring us back blessings and delight. We rapidly forgot in new sensations the embarrassments and weary hours of the wet season, and with jocund, hopeful hearts, looked forward to the toils of summer as enviable amusements.

The vegetation of our plantation of trees was rapidly advancing; the seed we had thrown into the ground was sprouting in slender

blades that waved luxuriantly ; a pleasing tender foliage adorned the trees ; the earth was enamelled with an infinite variety of flowers, whose agreeable tints diversified the verdure of the meadows. Odorous exhalations were diffused through the atmosphere ; the song of birds was heard around ; they were seen between the leaves joyfully fluttering from branch to branch ; their various forms and brilliant plumage heightened this delightful picture of the most beautiful spring, and we were at once struck with wonder and penetrated with gratitude towards the Creator of so many beauties. Under these impressions we celebrated the ensuing Sunday in the open air, and with stronger emotions of piety than we had hitherto felt on the fertile shores upon which we had been so miraculously saved and fostered. The blessings which surrounded us were ample compensation for some uneasy moments which had occasionally intervened, and our hearts, filled with fresh zeal, were resolved to be resigned, if it should be the will of God, to pass the residue of our days in this solitude with serenity of soul and every due exertion. The force of paternal feelings, no doubt, made me sometimes form other wishes for my children ; but these I buried in my own breast, for fear of disturbing their tranquillity : but if I secretly indulged a desire for some event that

might prolong and even increase their happiness, I nevertheless wholly submitted all to the Divine will, the manifestation of which I awaited in becoming thankfulness and patience.

Our summer occupations commenced by arranging and thoroughly cleaning Falcon's Nest, the order and neatness of which the rain and dead leaves blown by the wind had disturbed: in other respects, however, it was not injured, and in a few days we rendered it completely fit for our reception; the stairs were cleared, the rooms between the roots re-occupied, and we were left with leisure to proceed to other employments. My wife lost not a moment in resuming the process of her flax concern. Our sons hastened to lead the cattle to the fresh pastures, already dried by the sun; whilst it was my task to carry the bundles of flax into the open air, where by heaping stones together I contrived an oven sufficiently commodious to dry it well. The same evening we all set to work to peel, and afterwards to beat it and strip off the bark, and lastly to comb it with my carding machine, which fully answered the purpose. I took this somewhat laborious task on myself, and drew out such distaffs full of long soft flax ready for spinning, that my enraptured wife ran to embrace me, to express her heartfelt acknowledgement, re-

questing me to make her a wheel without delay, that she might enter upon her favourite work.

At an earlier period of my life I had practised turnery for my amusement ; now, however, I was unfortunately destitute of the requisite utensils ; but as I had not forgotten the arrangement and component parts of a spinning-wheel and reel, I by repeated endeavours found means to accomplish those two machines to her satisfaction ; and she fell so eagerly to spinning, as to allow herself no leisure even for a walk, and scarcely time to dress our dinners : nothing so much delighted her as to be left with her little boy, whom she employed to reel as fast as she could spin, and sometimes the other three were also engaged in turns at the wheel, to forward her business whilst she was occupied in culinary offices ; but not one of them was found so tractable as the cool-tempered quiet Ernest, who preferred this to more laborious exertions, though such was our want of linen and clothes, that we ought all readily and even eagerly to have joined in procuring them ; but our excursions, and the necessary liberty they involved, were more agreeable to us than this female occupation. Our first visit was to Tent-House, as we were anxious to ascertain the ravages of winter there, and we found them much more

considerable than at Falcon's Stream, and even dreadful : the tempest and rain had beaten down the tent, carried away a part of the sail-cloth, and made such havoc amongst our provisions, that by far the largest portion of them was spotted with mildew, and the remainder could be only saved by drying them instantly. Luckily, our handsome pinnace had been for the most part spared ; it was still at anchor, ready to serve us in case of need ; but our tub-boat was in too shattered a state to be of any further service.

In looking over the stores we were grieved to find the gunpowder most damaged, of which I had left three barrels in the tent instead of placing them in a more sheltered situation in the cavity of the rock. The contents of two were rendered wholly useless. I thought myself fortunate on finding the remaining one in tolerable condition, and derived from this great and irreparable loss a cogent motive to fix upon winter quarters where our stores and wealth would not be exposed to such cruel dilapidations.

Notwithstanding the gigantic plan suggested by the enterprising characters of Fritz and Jack, I had little hope of being able to effect the excavation of a dwelling in the side of the rock. Robinson Crusoe is supposed to have found a spacious cavern that merely required arrangement ; no such cavity was

apparent in our rock, which bore the aspect of primitive existence, and was of extreme hardness ; so that with our limited powers, three or four summers would scarcely suffice to execute the design. Still, the earnest desire of a more substantial habitation to defend us from the elements, perplexed me incessantly, and I resolved to make at least the attempt of cutting out a recess that should contain the gunpowder, the most valuable of all our treasures ; by which means it would be secured against injury from the vicissitudes of the weather. With this resolution I set off one day, accompanied by my two valiant workmen Fritz and Jack, leaving their mother at her spinning with her assistants Ernest and Francis. We took with us pick-axes, chisels, hammers, and iron levers, to try what impression we could make on the rock. I chose a part nearly perpendicular, and much better situated than our tent : the view from it was enchanting ; for it embraced the whole range of Safety Bay, the banks of Jackal's Stream and Family Bridge, and many of the picturesque projections of the rocks. I marked out with charcoal the circumference of the opening we wished to make, and we began the heavy toil of piercing the quarry. We made so little progress the first day, that in spite of all our courage we were tempted to relinquish the under-

taking ; we persevered however, and my hope was somewhat revived as I perceived the stone was of a softer texture as we penetrated deeper : we concluded from this, that the ardent rays of the sun striking upon the rock had hardened the external layer, and that the stone within would increase in softness as we advanced, and we admitted a ray of hope that the substance would prove to be a species of calcareous stone. When I had cut about a foot in depth, we could loosen it with the ~~spade~~ like dried mud ; this determined me to proceed with double ardour, and my boys assisted me in the task with a zeal beyond their years.

After a few days of assiduous labour we measured the opening, and found we had already advanced seven feet into the rock. Fritz removed the fragments in a barrow, and discharged them in a line before the place to form a sort of terrace ; I applied my own labour to the upper part to enlarge the aperture ; Jack, the smallest of the three, was able to get in and cut away below. He had with him a long iron bar sharpened at the end, which he drove in with a hammer to loosen a large piece ; suddenly he bawled out : It is pierced through, father ! Fritz, I have pierced it through !

Hah, hah, master Jack at his jokes again ! — But let us hear, what have you pierced ?

Is it the mountain? Not peradventure your hand or foot, Jack? cried I:

Jack.—No, no, it is the mountain; (the rocks resounding with his usual shout of joy) huzza, huzza, I have pierced the mountain!

Fritz now ran to him. Come, let us see then; it is no doubt the globe at least you have pierced, said he, in a bantering tone: you should have pushed on your tool boldly, till you reached Europe, which they say is under our feet; I should have been glad to peep into that hole.

Jack.—Well, then, peep you may, I can assure you, but I hardly know what you will see; now come and look how far the iron is gone in, and tell me if it is all my boasting;—if there were not a hollow space behind, how could it penetrate the rock so easily?

Come hither, father, said Fritz, this is really extraordinary; his iron bar seems to have got to a hollow place; see, it can be moved in every direction. I approached, thinking the incident worth attention: I took hold of the bar, which was still in the rock, and pressing it forcibly from one side to another, I made a sufficient aperture for one of my sons to pass, and I observed that in reality the rubbish fell within the cavity, the extent of which I could not ascertain, but I judged from the falling of the stones that it was not much deeper than the part we stood

on. My two lads offered to go in together and examine it : this, however, I firmly opposed : I even made them remove from the opening, as I smelted the mephitic air that issued abundantly from it, and began myself to feel giddiness in consequence of having gone too near ; so that I was compelled to withdraw quickly, and inhale a purer air. Beware, my dear children, said I in terror, of entering such a perilous cavern ; life might be suddenly extinguished there.

Jack.—What, lose our lives, father ! do you think then it contains lions or tigers ? Only give me a gun, and let me speak a word to them.

Fritz.—How can you think such animals could live there ? Father may indeed fear that it is inhabited by serpents or vipers.

Jack.—And what should hinder us, pray, from killing serpents and vipers ?

I admire, said I, your courage, my brave Jack, but it shall not be tried on this occasion. Neither lions, serpents, nor men are there, yet the danger still exists : how would my young hero acquit himself, when on entering the aperture he should feel his respiration totally cease ?

Jack.—Not be able to breathe ! and why not ?

Fritz.—Because the air is mephitic, that is, foul, and therefore unfit for breathing in,

and those who are exposed to it must of course be suffocated. But in what manner, father, is this air corrupted ?

Father.—In different ways : for example, when it is replete with noxious vapours, or when it contains too many igneous or inflammable particles, or when it is too heavy or dense, as fixed air is ; but in general, when it merely loses its elasticity, it no longer passes freely into the lungs ; respiration is then stopped, and suffocation speedily ensues, because air is indispensable to life and the circulation of the blood.

Jack.—Then all to be done is to be off quickly when one feels a stoppage of breath.

Father.—This is certainly the natural course when it can be taken ; but the attack usually begins by a vertigo or dizziness of the head, so violent as to intercept motion, which is followed by an insurmountable oppression ; efforts are made to breathe, fainting follows, and without speedy help, a sudden death takes place.

Fritz.—What assistance can be administered ?

Father.—The first thing to be done is to remove the person so affected to pure fresh air, and to throw cold water over his body ; he must then be well dried, and afterwards rubbed with warm cloths ; vital air must be

infused, or tobacco-smoke thrown up ;—in short, he must be treated like a drowned person till signs of re-animation appear, which is not always the result.

Fritz.—But why do you think, father, the air in this cavern is mephitic, as you term it, or dangerous to breathe in ?

Father.—All air confined and wholly separated from that of the atmosphere, gradually loses its elasticity, and can no longer pass through the lungs : in this state it generates injurious qualities that interrupt the process of respiration. It is in this act that the atmospheric air diffused around us, unites intimately with the blood, to which it communicates one of its most essential parts, called vital air, for without it life cannot be supported. This air failing, respiration ceases, and death succeeds in a few minutes : the consequence is similar when this air is impregnated too abundantly with injurious parts.

Fritz.—And by what is good air known ? How judge that one may respire freely at a few paces from this mephitic cave ?

Father.—This becomes evident when inspiration and expiration are performed with ease ; besides, there is an infallible test : fire does not burn in foul air, yet it is made the means of correcting it. We must light a fire of sufficient strength in this hole to purify the air within, and render it friendly to respiration.

tion : at first the bad air will extinguish the fire, but by degrees the fire in its turn will expel the bad air and burn freely.

Fritz.—Oh ! if that is all, it is an easy matter. As soon as the foul air is out, we can make a huge opening, and walk about in the whole interior as if it were a level plain. The boys now hastened to gather some dry grass, which they made into bundles ; they then struck a light, and set fire to them, and threw the noiss blazing into the opening ; but, as I had described, the fire was extinguished at the very entrance, thus proving that the air within was highly mephitic. I now saw that it was to be rarefied by another and more effectual method ; I recollect ed opportunely, that we had brought from the vessel a chest which had belonged to the artificer, and had put it by in the tent, and that it was full of granadoes and rockets, of which and other fire-works a number had been shipped for the purpose of making signals as well as for amusement. I sought this chest hastily, and took out of it some of the most requisite materials, and an iron mortar for the purpose of throwing them into the hollow : with these I speedily returned to attack with my artillery the aërial demons : I threw the whole in, with a train that extended to where we stood, and thus ignited the space. A general explosion took place, and

an awful report reverberated through the dark recess ; the granadoes flew about on all sides like brilliant meteors ; we hurled them back to the extremity of the cavern, they rebounded and burst with a terrific sound. We then sent in the rockets, which had also a full effect ; they hissed in the cavity like flying dragons, disclosing to our astonished view its vast extent. - We beheld too, as we thought, numerous dazzling bodies that sparkled suddenly, as if by magic, and disappeared with the rapidity of lightning, leaving the place wrapped in the most profound obscurity. A squib bursting in the form of a star presented a spectacle we wished to be prolonged. On its separating, a crowd of little winged genii came forth, each holding a small lighted lamp, and the whole fluttering in every direction with a thousand varied reverberations : every thing in the cavern shone brilliantly, and offered instantly a truly enchanting sight ; but they dropped in succession, fell to the ground without noise, and vanished like æthereal spirits.

After having played off our fire-works, I tried lighted straw : to our great satisfaction, the bundles thrown in were entirely consumed ; we could then reasonably hope nothing was to be feared from the air ; but there still remained the danger of plunging into some abyss, or of meeting with a body

of water: from these considerations I deemed it more prudent to defer our entrance into this unknown recess till we had lights to guide us through it. I dispatched Jack on the buffalo to Falcon's Stream, to impart our discovery to his mother and two brothers, directing him to return with them, and bring all the tapers that were left: my intention was to fasten them together on a stick, and form therewith a large torch, and thus illuminated, proceed with our whole troop to examine the interior of this grotto. I had not sent Jack on his embassy without a meaning; the boy possessed from nature a lively and poetical imagination: I knew he would tell his mother such wonders of the enchanted grotto, of the fire-works, and all they had brought to our view, that in spite of the charms of her spinning-wheel he would induce her to accompany him without delay, and bring us lights to penetrate the obscure sanctuary.

Overjoyed at his commission, Jack sprang on the buffalo, which he had nearly appropriated to himself, gaily smacked his whip, and set off so boldly that I almost trembled for his safety. The rash intrepid boy was unincumbered by fear, and made a complete race-horse of his horned Bucephalus.

In waiting his coming back, I proposed to Fritz to widen the entrance to the subterra-

neous grotto, to remove the rubbish, and make a way for his mother to pass in easily. After labouring three or four hours we saw them coming up in our car of state,—the one I had equipped for the potatoes,—and which was now drawn by the cow and the ass, and conducted by Ernest. Francis too played his part in the cavalcade, and contended with his brother for the ropes that served as reins. Jack, mounted on his buffalo, came prancing before them, blew through his closed hand in imitation of a French horn, and now and then whipped the ass and cow to quicken their motion. When they had crossed Family Bridge, he came forward on the gallop ; and when he got up to us, jumped off the beast, shook himself, took a spring or two from the ground, and thus refreshed, ran up to the car to hand his mother out like a true and gallant knight.

I immediately lighted my torches ; but instead of tying them together as I had intended, I preferred each taking one in his right hand, an implement in his left in case of accident, a taper in his pocket, flint and steel ; and thus we entered the rock in solemn procession. I took the lead, my sons followed me, and their beloved mother with the youngest brought up the rear, her interest and curiosity not unalloyed with tender apprehensions ; and indeed I felt myself that sort

of fear which an unknown object is apt to excite: even our dogs that accompanied us betrayed some timidity, and did not run before as usual; but we had scarcely advanced four paces within the grotto, when all was changed to more than admiration and surprise. The most beautiful and magnificent spectacle presented itself. The sides of the cavern sparkled like diamonds, the light from our six tapers was reflected from all parts, and had the effect of a grand illumination. Innumerable crystals of every length and shape hung from the top of the vault, which, uniting with those of the sides, formed pillars, altars, entablatures, and a variety of other figures, constituting the most splendid masses. We might have fancied ourselves in the palace of a fairy, or in an illumined temple. In some places all the colours of the prism were emitted from the angles of the crystals, and gave them the appearance of the finest precious stones. The waving of the lights, their bright coruscations, dark points here and there occurring, the dazzling lustre of others—the whole, in short, delighted and enchanted the sight and the fancy.

The astonishment of my family was so great as to be almost ludicrous; they were all in a kind of dumb stupor, half imagining it was a dream: I had seen stalactites and read the description of the famous grotto of

Antiparos, far more considerable than this, which, however, gave an idea of it. The bottom was level, covered with a white and very fine sand, as if purposely strewed, and so dry that I could not see the least mark of humidity anywhere. All this led me to hope the spot would be healthy, convenient, and eligible for our proposed residence. I now formed a particular conjecture as to the nature of the crystallizations shooting out on all sides, and especially from the arch-roof; they could scarcely be of that species of rock crystals produced by the slow filtering of water falling in drops and coagulating in succession, and seldom found in excavations exhibiting so dry a nature, nor ever with so many of the crystals perpendicular and perfectly smooth. I was impatient to evince the truth or falsehood of my opinion by an experiment, and discovered with great joy, on breaking a portion of one of them, that I was in a grotto of sal gem, that is, fossil or rock salt²⁰, found in the earth in solid crystallized masses, generally above a bed of spar or gypsum, and surrounded by layers of fossils or rock. The discovery of this fact, which no longer admitted a doubt, pleased us all exceedingly. The shape of the crystals, their little solidity, and finally their saline taste, were decisive evidences.

How highly advantageous to us and our

cattle was this superabundance of salt, pure and ready to be shovelled out for use, and preferable in all respects to what we collected on the shore, which required to be refined!

My wife was charmed with my good fortune in having cut through the rock at this spot. I observed, that in all probability the mine extended a long way, and that I should have discovered salt had I opened at any other part, though such a wonderful grotto might not have been found every where.

Little Francis said to his brothers in a whisper, that it was certainly the palace of some good fairy, who would come with her wand and grant them every thing they wished for, if they were good. Well then, said Jack, I ask her to make you a little wiser and less credulous; don't you hear father say all these diamonds are only salt? and how often has he told you that God alone does wonders? The dear child said no more, but shook his pretty fair locks as if he gave up his enchanted palace with some reluctance; and to say the truth, his notion did not surprise me. As we advanced in the grotto, remarkable figures formed by the saline matter every where presented themselves; columns reaching from the bottom to the top of the vault appeared to sustain it, and some

even had cornices and capitals: here and there undulating masses which at certain distances resembled the sea. From the variegated and whimsical forms we beheld, fancy might make a thousand creations at its pleasure; windows, large open cupboards, benches, church ornaments, grotesque figures of men and animals; some like polished crystals or diamonds, others like blocks of alabaster.

We viewed with unwearyed curiosity this repository of wonders, and we had all lighted our second taper, when I observed on the ground in some places a number of crystal fragments that seemed to have fallen off from the upper part. Such a separation might recur and expose us to danger; a piece falling on any of our heads might prove instantly fatal: but on closer inspection I was convinced they had not dropped of themselves spontaneously; the whole mass was too solid for fragments of that size to have been so detached from it; and had dampness loosened them they would have dissolved gradually: I rationally concluded they were broken off by the explosion of our artillery and fire-works, that had caused a violent concussion in this subterraneous palace. However, I thought it prudent to retire, as other loosened pieces might unexpectedly fall on us. I directed my wife and three of the chil-

dren to place themselves in the entrance, while Fritz and I carefully examined every part that threatened danger. We loaded our guns with ball and fired them in the centre of the cavern, to be more fully assured of what produced the separation of the former pieces ; one or two more fell, the rest remained immovable, though we went round with long poles and struck all we could reach. We at length felt confident that in point of solidity there was nothing to fear, and that we might proceed to fit up our new habitation without dread of accident. Our joy on this important discovery did not fully declare itself till after these trials. Loud exclamations, mixed with numerously varied questions, projects, consultations, now succeeded to our mute astonishment ! Many schemes were formed for converting this beautiful grotto into a convenient and agreeable mansion for our abode. All the force of our imagination was centred in that point : the greatest difficulty was removed ; we had possession of the most eligible premises ; the sole business now was to turn them to the best account, and how to effect this was our unceasing theme : some voted for our immediate establishment there, but they were opposed by more sagacious counsel, and it was resolved that Falcon's Stream should continue to be our head quarters till the end of the year.

CHAPTER XXXIII.

House in the salt-rock ;—herring fishery.

THE lucky discovery of a previously-existing cavern in the rock, had, as must be supposed, considerably lessened our labour : excavation was no longer requisite : I had more room than was wanted for the construction of our dwelling ; to render it habitable was the present object, and to do this did not seem a difficult task. The upper bed of the rock in front of the cavern, through which my little Jack had dug so easily, was of a soft nature, and to be worked with moderate effort. I hoped also that, being now exposed to the air and heat of the sun, it would become by degrees as hard and compact as the first layer that had given me so much trouble. From this consideration I began, while it retained its soft state, to make openings for the door and windows of the front. This I regulated by the measurement of those I had fixed in my winding stair-case, which I had removed for the purpose of placing them in our winter tenement. Intending Falcon's Nest in future as a rural retreat for the hottest days of summer, the windows of the

stair-case became unnecessary ; and as to the door, I preferred making one of bark similar to that of the tree itself, as it would conceal our abode the better, should we at any time experience invasion from savages or other enemies : the doors and windows were therefore taken to Tent-house, and afterwards properly fixed in the rock. I had previously marked out the openings to be cut for the frames, which were received into grooves for greater convenience and solidity. I took care not to break the stone taken from the apertures, or at least to preserve it in large pieces, and these I cut with the saw and chisel into oblongs an inch and half in thickness, to serve as tiles. I laid them in the sun, and was gratified in seeing they hardened quickly ; I then removed them, and my sons placed them in order against the side of the rock till they were wanted for our internal arrangements.

When I could enter the cavern freely through a good door-way, and it was sufficiently lighted by the windows, I erected a partition for the distribution of our apartments and other conveniences. The extent of the place afforded ample room for my design, and even allowed me to leave several spaces in which salt and other articles could be stored. At the request of my children, I was cautious to injure as little as possible

the natural embellishments of this new family mansion ; but with all my care, I could not avoid demolishing them in the division allotted to the stables :—cattle are fond of salt, and would not have failed to eat away these ornaments, and perhaps in a prejudicial quantity : however, to gratify and reward my obedient children, I preserved the finest of the pillars and the most beautiful pieces to decorate our saloon. The large ones served us for chairs and tables, and the brilliant pilasters at once enlivened and adorned the apartment, and at night multiplied the reflection of the lights. I laid out the interior in the following manner :—A very considerable space was first partitioned off in two divisions ; the one on the right was appropriated to our residence ; that on the left was to contain the kitchen, stables, and work-room. At the end of the second division, where windows could not be placed, the cellar and store-room were to be formed ; the whole separated by partition boards, with doors of communication, so as to give us a pleasant and comfortable abode. Favoured so unexpectedly by what nature had already effected of the necessary labour, we were far from repining ungratefully at what remained to be done, and entertained full hope of completing the undertaking, or at least the chief parts, before winter.

The side we designed to lodge in, was divided into three chambers; the first, next the door, was the bed-room for my wife and me, the second a dining-parlour, and the last a bed-chamber for the boys. As we had only three windows, we put one in each sleeping-room; the third was fixed in the kitchen, where my wife would often be. A grating for the present fell to the lot of our dining-room, which, when too cold, was to be exchanged for one of the other apartments. I contrived a good fire-place in the kitchen near the window; I pierced the rock a little above, and four planks nailed together and passed through this opening answered the purpose of a chimney. We made the work-room near the kitchen, of sufficient dimensions for the performance of undertakings of some magnitude; it served also to keep our cart and sledge in: lastly, the stables, which were formed into four compartments to separate the different species of animals, occupied all the bottom of the cavern on this side; on the other were the cellar and magazine.

It is readily imagined that a plan of this extent was not to be executed as if by enchantment, and that we satisfied ourselves in the first instance with doing what was most urgent, reserving the residue of our arrangements for winter; yet every day forwarded

the business more than we had been aware of. On every excursion, we brought something from Falcon's Stream, that found its place in the new house, where we deposited likewise in safety the remaining provisions from the tent.

The long stay we made at Tent-House during these employments, furnished us an opportunity of perceiving several advantages we had not reckoned upon, and which we did not defer availing ourselves of. Immense turtles were very often seen on the shore, where they deposited their eggs in the sand, and they regaled us with a rich treat; but, extending our wishes, we thought of getting possession of the turtles themselves for live stock, and of feasting on them whenever we pleased. As soon as we saw one on the sands, one of my boys was dispatched to cut off its retreat; meanwhile we approached the animal, quickly and quietly without doing it any injury turned it on its back, passed a long cord through the shell and tied the end of it to a stake, which we fixed close to the edge of the water. This done, we set the prisoner on his legs again; it hastened into the sea, but could not go beyond the length of the cord: apparently it was all the happier, finding food with more facility along shore than out at sea; and we enjoyed the idea of being able to take it

when wanted. I say nothing of sea-lobsters, oysters, and many other small fishes which we could catch in any number. We at length got used to and to like oysters, and occasionally had a treat of them. The large lobsters, whose flesh was tough and coarse, were given to the dogs, who preferred them to potatoes; but we shortly after became possessors of another excellent winter provision which chance unexpectedly procured us.

We left Falcon's Stream very early one morning; when near Safety Bay we observed at some distance in the sea, a singular sort of spectacle which we had not before witnessed, though we had gone that way so many times. An extensive surface of the water seemed in a state of ebullition as if heated by a subterraneous fire; it swelled, subsided, foaming like boiling water: a large number of aquatic birds hovered over it, gulls, man of war birds, boobies, albatrossas, and a crowd of others we were strangers to, whose shrill cries pierced our ears; the feathered throng were in motion: sometimes they darted along the surface of the water, sometimes rose in the air, flying in a circle, pursuing each other in every direction; we were at a loss to judge whether sportiveness, pleasure or warfare produced their varied flights. The space too of

seemingly boiling surface exhibited a peculiar aspect; small lights issued from it on all sides like flames disappearing and rekindling every moment. We perceived also that the motion of this part was from the main sea towards the land, and particularly Safety Bay, whither we hastened to examine this phenomenon. On our way we formed a thousand conjectures about it: my wife had accompanied us for the purpose of arranging the provisions in the new magazines; she supposed it to be merely a large sand bank, to which the tide gave the semblance of motion, and which by reflecting the beauteous tints of aurora, imparted a flaine colour to the waves and caused an optical deception. This was too simple a solution for the vivid imagination of Fritz, who maintained that something extraordinary was operating at the bottom of the deep; some secret fire seeking a vent, or perhaps an earthquake; possibly the approaching irruption of a fresh volcano somewhere. Ernest strongly controverted this idea: The birds, said he, would instinctively fly from the spot, instead of collecting in heaps over it and gaily fluttering, so as to excite the surmise of there being another body in the air as large and as agitated as that in the sea: see how they plunge into it, said he; were the water hot, as Fritz thinks, they would scald their feet and beaks.

The latter had little to say in reply ; Well then, said he, tell us, Mr. Professor, what it is, instead of what it is not.

Ernest.—I am much disposed to think it is some huge sea-monster, a grampus or a whale that raises up its back sometimes like an isle, on which are a quantity of small fishes that offer an easy prey to the birds ; on this account they follow the monster, striving greedily to seize all they can in darting on it : those that succeed, fly off with their prey, and the rest pursue to snatch it from them. I feel assured that this is the case, and that if we look closely we shall observe this aquatic giant stretch out its immense fins, and when sufficiently warmed by the sun and it has inhaled a fresh supply of air, it will dive into the ocean, and form a vortex capable of sinking a large ship, if near it.

Jack.—Yes, father, Ernest is quite right. At the very edge of the bank, and in proportion to its approach, I distinctly see something fall and rise again ; one of its monstrous fins no doubt ; I perceive its enormous claws too, certainly. If this great creature leaped out of the water, should we not all be in imminent danger ?

Father.—Yes, yes, it might perhaps swallow my son Jack as people swallow a pill. But, boys, these suppositions are at best but

slimy fancies, and it is a pity that the pains you take should not produce the least semblance of truth ; and I am really surprised to find you so ready to believe in the existence of a monster equal in length to this moving bank.

Ernest.—Upon my word, father, I have read of whales upsetting the largest ships by getting under them, and that sailors have often mistaken them for islands, got on them, sunk, and been devoured by the monster.

Father.—You must allow, Ernest, for a good deal of exaggeration in such accounts, if they be not altogether fabulous. It is possible a marine animal of huge dimensions may have upset a small vessel, though I presume that would be difficult ; I likewise believe it possible for a whale's back to have been taken at some distance for a diminutive island ; but when near, its shape and motions would soon destroy the illusion. It is certain that the whale-fishers get on the back of the animal to harpoon it ; and this I believe is the foundation of these wonderful narratives. As to the moveable bank before us, I will now, on the observation I have taken, venture to inform you that it is neither more nor less than a shoal of herrings about to enter Safety Bay and fall into our hands ; they will be well received by me, I assure you ; and it is worth our while to get on speedily, that we may be sure of securing so valuable a booty.

Francis.—But, dear father, what is a herring-shoal?

Father.—It is an immense number of small fishes called herrings, which you ought to know, having often eaten of them in Europe. They swim so close together and occupy such a space, that they appear like a bank or island of sand several leagues in breadth, some fathoms deep, and sometimes above a hundred thousand long, at the moment of leaving the frozen sea together in a heap: they afterwards divide into bodies which cross the ocean on all sides, directing their course to the coasts and bays, where they spawn, that is, leave their eggs among the stones and sea plants, and to these spots fishermen from all parts go to catch them. The shoal is invariably followed by a legion of the largest fishes, such as bonittas, dories, sturgeons, dolphins, sea-dogs, &c. which are very fond of them. These are not their only enemies; they also draw after them, as you see, flocks of voracious birds, that rush like banditti along the surface of the water and seize all they can. The herrings appear eager to reach those parts where the tide is lowest, to escape from the voracity of the sea monsters, by getting into shallow water; but in doing this they become an easier prey to the birds and to man. Exposed to destruction in so many ways, one might wonder the species is not extinct, if nature had not

provided against these accidents by their astonishing fecundity; 68,656 eggs have been found in a moderate-sized female: thus they continue undiminished notwithstanding the vast numbers which are destroyed; in some seasons and latitudes they appear in such numerous and compact bodies that the fishery is relinquished. What Jack took for arms or fins, is, I imagine, the water spouted in the air by the dolphins, which keenly pursue the herrings. The whale and the grampus join in the chase, and from their size must commit enormous devastations.

Fritz.—It is well they have left us a few; see how the shoal enters the bay. And in reality the entrance of it was entirely filled with them: they made a loud rustling noise in the water, leaping over each other, and displaying their scales of silver hue. This accounted for the luminous sparks we had seen emitted from the sea, and which we could not previously explain. We had no time for further contemplation, but hastened to unharness our team and supply the want of nets with our hands in catching the herrings: the boys used the largest gourds in lieu of pails, which were no sooner dipped in than filled; and we should have been at a loss where to stow them, had I not thought of employing the condemned boat of tubs. No sooner thought than accomplished; I

had it immediately drawn to the water's edge by the buffalo, and placed it on rollers; my wife and the two youngest lads cleaned it, whilst the other two went to the cavern for salt, and I quickly fitted up a sort of tent of sail-cloth on the strand, so as to keep off the rays of the sun while we were busied in salting. We then all engaged in the task, and I allotted to each a share adequate to his strength and skill. Fritz took his station in the water to bring us the herrings as fast as caught; Ernest and Jack cleaned them with knives; their mother pounded the salt; Francis helped all, and I placed them in the tubs as I had seen done in Europe. A joyous shout declared the general activity, though we did not get at once into a regular train with our proceedings; one of us was occasionally disengaged whilst the others were overborne with labour: this however was speedily arranged, and the business so well managed, that it was performed with speed and pleasure. I put a layer of salt at the bottom of the barrel, then of fish, the heads towards the staves, proceeding thus till my tubs were nearly full: I spread over the last layer of salt, large palm-tree leaves, on these a piece of sail cloth, and fitted in two half-rounded planks for a heading, which I pressed down with stones. This effected, I put the buffalo and the ass to the

cart again, and conveyed it to our cool cellar in the rock. In a few days, when the herrings were sunk, I closed the barrels more accurately by means of a coating of clay and flax over the cloth, which kept out air and moisture completely, and secured us an excellent food for winter.

This work, in which we were engaged several days, kept us at Tent-House the whole week. Working from morning till night, we could only prepare and salt two large casks of them, and we wished to have at least eight. During this time fresh herrings were our chief aliment, and we from the novelty relished them exceedingly.

Scarcely had we finished our salting when another business arising out of it occurred ; a number of sea dogs came into the bay and river²¹, that had followed the herrings with the utmost greediness, sporting in the water along shore, without evincing any fear of us. This fish, which is scarcely eatable, offered little attraction to our palate and table, but in a different point of view the possession of it would be very beneficial ; its skin tanned and dressed, makes excellent leather. I was in great need of it for straps and harness, to make saddles for Fritz and Jack to ride the onagra and buffalo, and in short for our own use to cut up into soles, belts, and pantaloons, of which articles we much wanted a

fresh supply: besides, I knew the fat yielded good lamp oil, that might be substituted for tapers in the long evenings of winter; and that it would be further useful in tanning and rendering the leather pliant.

I directed my three eldest boys to kill a dozen of these large fishes with sticks and pickaxes instead of using powder, and they promptly began the attack. It is remarkable that boys in general have a disposition for the destruction of animals, which by degrees leads them to view their sufferings with indifference. I felt regret in being urged occasionally by circumstances to encourage this propensity; it therefore gave me pleasure to see them return in a few minutes and entreat me to allow them a little powder and some bullets, that they might dispatch the poor harmless creatures at once without much pain. I acquiesced of course in their entreaty and commended the humane idea, which I thought well worth the ammunition expended in the execution of it. It was in our peculiar situation impracticable for us to yield to that morbid sensibility which shudders at inflicting the smallest suffering upon an animal; nor can I help thinking such exhibitions somewhat absurd, since those very persons do not scruple to have on their table a nice chicken, a large fish, lobsters, and many other animals that have as valid a

right to live as those we were necessitated to kill: however, I represented constantly to my children that cruelty and the passion of immolating without necessity, any of the brute creation, degrade man, and may lead on to the worst of crimes. On this occasion I was gratified in seeing they had surpassed me in consideration and humanity. In a very short time, after a few firings, the number of fishes was completed; we skinned them while fresh with little trouble, well rubbed them with salt on both sides, and hung them to dry in the sun, to be afterwards dressed in our grotto. Curiosity induced my wife to cook a piece of one of them, but it proved so bad that we threw it to our dogs, the eagle, and jackal, who made a hearty meal of it. The fat we preserved carefully, of which we collected a quantity; it was first put into a copper, melted and cleansed properly, then poured into casks and kept for the tan-house and lamp. When time should allow, I purposed making soap with it, and this design excited my wife's zeal in the unpleasant though ultimately useful task we were engaged in. We also took care of the bladders, which are very large, for the purpose of holding liquids; the remaining parts that could be turned to no account were thrown into the adjoining stream; and this last act most unexpectedly

procured us a regular supply of a far more palatable food—a number of fine fresh-water lobsters which came to feed on these offals. We bored through the sides of some empty chests, which we placed and kept down in the water with stones, and thus caught and preserved as in a reservoir as many lobsters as we wanted. A similar contrivance was fixed in Safety-Bay, which first became filled with live herrings, and subsequently with various kinds of small fishes that were caught with ease.

At this time I likewise made some improvements in our sledge, to facilitate the carrying of our stores from Falcon's Stream to our dwelling in the rock at Tent House. I raised it on two beams, or axle-trees, at the extremities of which I put on the four gun-carriage wheels I had taken off the cannon from the vessel; by this alteration I obtained a light and very convenient vehicle, of moderate height, on which boxes and casks could be placed with little difficulty. Pleased with the operations of the week, we set out all together with cheerful hearts for Falcon's Stream to pass our Sunday there, and once more offer our pious thanks to the Almighty for all the benefits he had bestowed upon his defenceless creatures.

CHAPTER XXXIV.

*New fishery;—New experiments and chase;—
—New discoveries and house..*

THE arrangement of our grotto went on, sometimes as a principal, sometimes as an intermediate occupation, according to the greater or less importance of other concerns: but though we advanced thus with moderate rapidity, the progress was notwithstanding such as to afford the hope of our being securely established within it by the time of the rainy season.

From the moment I discovered gypsum to be the basis of the crystal salt²² in our grotto, I foresaw the great advantages I should derive from it for our undertaking; but being unwilling to enlarge the dimensions of our dwelling by digging further, I tried to find a place in the continuation of the rock, which I might be able to blow up: I had soon the good fortune to meet with a narrow slip between the projections of the rocks, which I could easily, by the means I proposed, convert into a passage that should terminate in our work-room. I found also

on the ground a quantity of fragments of gypsum, and removed a great number of them to the kitchen, where we did not fail to bake a few of the pieces at a time when we made a fire for cooking, which, thus calcined, rubbed into a powder when cold: we obtained a considerable quantity of it, which I put carefully into casks for use when the time should come for finishing the interior of our dwelling. My notion was, to form the walls for separating the apartments of the squares of stone I had already provided, and to unite them together with a cement of this new ingredient, which would be the means both of sparing the timber, and increasing the beauty and solidity of the work.

It is almost incredible the immense quantity of plaster we had in a short time amassed; the boys were in a constant state of wonder as they looked at the heap, and protested they believed that I staid up at night to work. I seized the opportunity of imprinting on their minds the value of a firm and steady perseverance in an object once engaged in, the reward of which they now so agreeably experienced: When we first cast our eyes, continued I, on this rock, how little did we conceive it possible to transform it into a comfortable dwelling-place; yet we have not only in our own persons sufficed for carpenters and masons, but even plasterers too,

and so effectually, that if we had it much at heart, we might adorn our walls with stucco as is the mode in Europe; we possess both the materials and intelligence, and with the addition of patience and industry, there is scarcely any thing, even what at first should seem impossible, too difficult for our performance.

The first use I made of the plaster was to complete some covers I had begun with other materials for my herring tubs, four of which I stopped down to render them impenetrable to the air; the rest of the herrings we intended to dry and smoke. For this purpose we erected a little sort of hut of reeds and branches, as is practised in Holland and America by the fishermen; we placed rows of sticks reaching from side to side across the hut, and laid the herrings upon them, and then lighted a heap composed of moss and fresh cut branches of trees, to produce a stronger and more effective vapour for the purpose: we made the door tight, and had soon the pleasure of adding a large stock of exquisitely flavoured dried herrings to our former store for the ensuing winter.

About a month after the singular visit of the herrings, which had now entirely left our shores, we received another and not a less profitable one from a fish of a different species: we observed Safety Bay to be filled

with large fishes which seemed eager to push to the shore for the purpose of depositing their eggs among the stones in fresh water. Jack was the first to discover this circumstance: he told me he had seen a great number of whales swimming about in Jackal's River, and supposed they were come in pursuit of the herrings, and that he was glad the greedy creatures would be disappointed. I replied that there must be some delusion in what he had seen, as I could not conceive of a regiment of whales arriving in our diminutive rivulet. Pray come with me, father, answered he, and look at them; some of them are as large as you, and if they are not whales, I will lay a wager that neither are they herrings. Hah, hah, master Jack, you are on the retreat then, I see; but between the whale and the herring there are many kinds and sizes, so I will e'en take side with you and wager that they are not herrings.

It however appeared to me worth while to go and convince myself on the spot, respecting these new-comers. Jack and I walked to the mouth of Jackal's River, and immediately perceived immense quantities of a large fish moving slowly towards the banks, and some of them from four to eight feet in length. By the pointed snout I supposed the largest to be sturgeons, while the smallest I pronounced to be salmon. Jack now strutted

and exulted as if he had gained the command of a regiment of soldiers:—What say you, now, father? said he, this is nothing like your little paltry herrings! A single fish of this troop would fill a tub!—No doubt, answered I: and with great gravity I added,—Pr'ythee, Jack, step into the river, and fling them to me one by one, that I may take them home to salt and dry.

He looked at me for a moment with a sort of vacant doubt if I could possibly be in earnest; then seizing suddenly a new idea—Wait a moment, father, cried he, and I will do so: and he sprung off like lightning towards the cavern, from whence he soon returned loaded with a bow and arrows, the bladders of the sea-dogs, and a ball of string to catch, as he assured me, every one of the fishes. I looked on with interest and curiosity to mark what was next to happen, while the animation of his countenance, the promptitude and gracefulness of his motions, and the firm determination of his manner, afforded me the highest amusement. He tied the bladders round at certain distances with a long piece of string, to the end of which he fastened an arrow and a small iron hook; he placed the large ball of string in a hole in the ground, at a sufficient distance from the water's edge, and then he shot off his arrow, which the next instant stuck in one of the largest fishes.

My young sportsman uttered a shout of joy. At the same moment Fritz joined us, and witnessed this unexpected feat without the least symptom of jealousy. Well done, brother Jack, cried he, but let me too have my turn.—Saying this he ran back and fetched the harpoon and the windlass, and returned to us accompanied by Ernest, who also desired to show his prowess in a contest with our newly discovered mariners. We were well pleased with their opportune arrival, for the salmon Jack had pierced struggled so fiercely, that all our endeavours to hold the string were insufficient, and we dreaded at every throw to see it break and the animal make good its escape. By degrees, however, its strength was exhausted, and aided by Fritz and Ernest, we succeeded in drawing it to a bank, where I put an end to its existence.

This fortunate beginning of a plan for a fishery inspired us all with hope and emulation. Fritz eagerly seized his harpoon and windlass; I, for my part, like Neptune, wielded a trident; Ernest prepared the large fishing rod, and Jack his arrow with the same apparatus as before, not forgetting the bladders which were so effectual in preventing the fish from sinking when struck. We were now more than ever sensible of our loss in the destruction of the tub-boat, with which we could have pursued the creature in the water, and

have been spared much pains and difficulty; but on the other hand, such numbers of fishes presented themselves at the mouth of the river, that we had only to choose among them; and accordingly we were soon loaded with them to our heart's content. Jack's arrow after missing twice, struck the third time a large sturgeon, which was so untractable that we had great difficulty in securing him. I too had caught two of the same fish, and had been obliged to go up to the middle in the water to manage my booty. Ernest, with his rod and line and a hook, had also taken two smaller ones. Fritz with his harpoon had struck a sturgeon at least eight feet in length, and the skill and strength of our whole company were found necessary to conduct him safe to shore, where we harnessed the buffalo to him with strong cords to draw him to Tent House.

Our first concern was to clean our fish thoroughly inside to preserve them fresh the longer. I separated the eggs I found in them, and which could not be less than thirty pounds, and put them aside to make a dish called caviar, greatly relished by the Russians and the Dutch. I took care also of the bladders, thinking it might be possible to make a glue from them which would be useful for so many purposes. I advised my wife to boil some individuals of the salmon in oil,

similar to the manner of preparing tunny-fish in the Mediterranean: and while she was engaged in this process, I was at work upon the caviar and the glue. For the first, I washed the berries in several waters, and then pressed them closely in gourd-rinds in which a certain number of holes had been bored. When the water had run off, the berries were taken out in a substance like cheese, which was then conveyed to the hut to be dried and smoked. For the second, we cut the bladders into strips, which we fastened firmly by one end to a stake, and taking hold of the other with a pair of pincers, we turned them round and round till the strip was reduced to a kind of knot, and these were then placed in the sun to harden; this being the simple and only preparation necessary for obtaining glue from the ingredient. When thoroughly dry, a small quantity is put on a slow fire to melt. We succeeded so well, and our glue was of so transparent a quality, that I could not help feeling the desire to manufacture some pieces large enough for panes to a window frame.

When these various concerns were complete, we began to meditate a plan for constructing a small boat as a substitute for the tub raft, to come close into shore. I had a great desire to make it, as the savages do, of the rind of a tree; but the difficulty was to

fix on one of sufficient bulk for my purpose ; for though many were to be found in our vicinity, yet each was on some account or other of too much value to be spared. . We therefore resolved to make a little excursion in pursuit of a tree of capacious dimensions, and in a situation where it was not likely to yield us fruit, to refresh us with its shade, or to adorn the landscape round our dwelling.

In this expedition we as usual aimed at more than one object : eager as we were for new discoveries, we yet allowed ourselves the time to visit our different plantations and stores at Falcon's Stream. We were also desirous to secure a new supply of the wax berry, of gourds, and of elastic gum. Our kitchen garden at Tent-House was in a flourishing condition ; nothing could exceed the luxuriance of the vegetation, and almost without the trouble of cultivation we had excellent roots and plants in abundance, which came in succession, and promised a rich supply of peas, beans of all sorts, lettuces, &c. ; our principal labour was to give them water freely, that they might be fresh and succulent for use. We had besides, melons and cucumbers in great plenty, which during the hottest weather we valued more than all the rest. We reaped a considerable quantity of Turkey wheat from the seed we had sown, and some of the ears were a foot in length.

Our sugar-canæs were also in the most prosperous condition, and one plantation of pine-apples on the high ground was also in progress to reward our labour with abundance of that delicious fruit.

This state of general prosperity at Tent House gave us the most flattering expectations from our nurseries at Falcon's Stream. Full of these hopes, we one day set out all together for our now somewhat neglected former abode.

We arrived at Falcon's Stream, where we intended to pass the night. We visited the ground my wife had so plentifully sowed with grain, which had sprung up with an almost incredible rapidity and luxuriance, and was now nearly ready for reaping. We cut down what was fairly ripe, bound it together in bundles, and conveyed it to a place where it would be secure from the attacks of more expert grain consumers than ourselves, of which thousands hovered round the booty. We reaped barley, wheat, rye, oats, peas, millet, lentils,—only a small quantity of each, it is true, but sufficient to enable us to sow again plentifully at the proper season. The plant that had yielded the most was maize, a proof that it best loved the soil. It had already shown itself in abundance in our garden at Tent House; but here there was a surface of land, the size of an ordinary field, entirely

covered with its splendid golden ears, which still more than the other plants attracted the voracity of the feathered race. The moment we drew near, a dozen at least of large bustards sprang up with a loud rustling noise which awakened the attention of the dogs; they plunged into the thickest parts, and routed numerous flocks of birds of all kinds and sizes, who all took hastily to flight; among the fugitives were some quails who escaped by running, and lastly some kangaroos, whose prodigious leaps enabled them to elude the pursuit of the dogs.

We were so overcome by the surprise such an assemblage of living creatures occasioned, as to forget the resource we had in our guns; we stood as it were stupid with amazement during the first moments, and before we came to ourselves the prey was beyond our reach, and for the most part out of sight. Fritz was the first to perceive and to feel with indignation the silly part we had been playing, and to consider in what way we could repair the mischief. Without further loss of time, he took the bandage from his eagle's eyes, (for the bird always accompanied him perched upon his-game bag,) and showed him with his hand the bustards still flying, and at no great distance. The eagle took a rapid flight. Fritz jumped like lightning on the back of his onagera and galloped oyer every thing that inter-

vened in the direction the bird had taken, and we soon lost sight of him.

We now beheld a spectacle which in the highest degree excited our curiosity and interest: the eagle had soon his prey in view; he mounted above the bustard in a direct line, without losing sight of it for an instant, and then darted suddenly down; the bustards flew about in utter confusion, now seeking shelter in the bushes, then crossing each other in every direction, in the attempt to evade the common enemy; but the eagle remained steady in the pursuit of the bird he had fixed upon for his prey, and disregarded all the rest: he alighted on the unlucky bustard, fixed his claws and his beak in its back, till Fritz arriving full gallop, got down from the onagra, replaced the bandage on the eagle's eyes, seated him once more upon the game-bag, and having relieved the poor bustard from his persecutor, he shouted to us to come and witness his triumph! We ran speedily to the place. Jack alone remained in the maize plantation, meditating also the giving us a specimen of the happy effects of the education he had bestowed on the young jackal, who had slipped slyly away after the birds we supposed were quails, and who on their parts were using every effort to escape; the jackal however soon overtook them, seized one of them by the wing and brought it to his mas-

ter; in the same manner he had carried him at least a dozen more by the time we reached the spot: and now nothing was heard but the exclamations of Fritz and Jack, who had not words to express their self-congratulations for the good effects of their mode of training their respective animals, who, to say the truth, deserved the wonder and the praise of all. A large fat quail was immediately given to each as a token of approbation.

At the conclusion of this adventure we hastened forward to arrive the soonest possible at Falcon's Stream, and pay the earliest attention to the wounds the bustard had received from the eagle. We perceived with pleasure that it was a male, and foresaw the advantage of giving him for a companion to our solitary female of the same species, who was completely tamed. I threw a few more bundles of maize into the cart, and without further delay we arrived at our tree, one and all sinking with faintness from hunger, thirst, and fatigue. It was on such occasions that my exemplary partner evinced the superior fortitude and generosity of her temper: though more a sufferer than either of us, her first thought was what she could administer to relieve us in the shortest time, for we had consumed our little store of wine, and could not soon and easily procure milk from the cow: she contrived to bruise some of the

maize between two large stones, and then put it in a linen cloth, and with all her strength squeezed out the sap; she then added some juice from the sugar-canies, and in a few minutes presented us with a draught of a cool refreshing liquid, beautifully white in appearance and agreeable to the taste, and which we received at her hands with feelings of grateful emotion.

I applied myself without loss of time to the cure of the bustard's wounds, which I washed carefully with a lotion composed of water, wine, and butter, which was our constant remedy; I then tied him by the leg close to the female in the yard. Jack had been able to preserve alive only two of the quails, which he now brought me, and I treated them in the same manner: all the others that the jackal had killed were plucked and put on the spit for supper. The rest of the day was employed in picking the grains of the different sorts of corn from the stalks: we put what we wished to keep for sowing into some gourd-shells, and the Turkey wheat was laid carefully aside in sheaves till we should have time to beat and separate it. Fritz observed that we should also want to grind it, and I reminded him of the hand-mill we had secured from our departed ally, the wrecked vessel.

Fritz.—But, father, the hand-mill is so small, and so subject to be put out of order:

—Why should we not contrive a water-mill, as they do in Europe? We have surely rapid streams of water in abundance.

Father.—This is true, but such a mechanism is more difficult than you imagine; the wheel alone, I conceive, would be an undertaking far beyond our strength or our capacity. I am, however, well pleased with the activity and zeal which prompted your idea; and though I dare not bid you trust in a successful result, yet we may consider whether it may be worth while to bestow upon it further attention; we have abundance of time before us, for we shall not want a water-mill till our harvests are such as to produce plentiful crops of corn. In the mean time let us be thinking, boy, of our proposed excursion for to-morrow, for we should set out, at latest, by sun-rise.

We began our preparations accordingly: my wife chose some hens and two fine cocks, with the intention of taking them with us and leaving them at large to produce a colony of their species at a considerable distance from our dwelling-places: I with the same view visited our stable, and selected four young pigs, four sheep, two kids, and one male of each species, our numbers having so much increased that we could well afford to spare these individuals for the experiment: if we succeeded in thus accustoming them to the

natural temperature and productions of our island, we should have eased ourselves of the burden of their support, and should always be able to find them at pleasure.

The next morning, after loading the cart with all things necessary, not forgetting the rope ladder and the portable tent, we quitted Falcon's Stream. The animals with their legs tied, were all stationed in the vehicle. We left abundance of food for those that remained behind; the cow, the ass, and the buffalo were harnessed to the cart; and Fritz mounted on his favourite, the onagra, pranced along before us to ascertain the best and smoothest path for the cavalcade.

We took this time a new direction, which was straight forward between the rocks and the shore, that we might make ourselves acquainted with every thing contained in the island we seemed destined for ever to inhabit. In effect, the line proceeding from Falcon's Stream to the Great Bay, might be said to be the extent of our dominions; for though Fritz and I had discovered the adjacent exquisite country of the buffalos, yet the passage to it by the end of the rocks was so dangerous, and at so great a distance, that we could not hope to domiciliate ourselves upon its soil, as we had done on our side of the rocks. We found, as usual, much difficulty in pushing through the tall tough grass and alternately

through the thick prickly bushes which every where obtruded themselves. We were often obliged to turn aside while I cut a passage with my hatchet; but these accidents seldom failed to reward my toil by the discovery of different small additions to our general comfort among others, some roots of trees curv'd by nature to serve both for saddles and yokes for our beasts of burden. I took care to secure several, and put them in the cart.

When we had spent about an hour in getting forward, we found ourselves at the extremity of the wood, and a most singular phenomenon presented itself to our view: a small plain, or rather a grove of low bushes, to appearance almost covered with flakes of snow, lay extended before us. Little Francis was the first to call our attention to it, he being seated in the cart:—Look, father, cried he, here is a place quite full of snow; let me get down and make some snow-balls: Oh, how glad I am that we shall now have snow instead of the ugly rain which made us all so uncomfortable!

I could not resist a hearty laugh; and though sure what we saw could not in the midst of such scorching heat be snow, yet I was completely at a loss to explain the nature of what in colour and appearance bore so near a resemblance to it. Suddenly, however, a suspicion crossed my mind, and was

soon confirmed by Fritz, who had darted forward on his onagra, and now returned with one hand filled with tufts of a most excellent species of cotton, so that the whole surface of low bushes was in reality a plantation of that valuable article. This most useful of almost the whole range of vegetable productions bestowed by Providence on man, which with the cost of only a little labour supplies him with apparel and commodious beds for the repose of his limbs, is found in such abundance in islands, that I had been surprised at not meeting with any before. The pods had burst from ripeness, and the winds had scattered around their flaky contents; the ground was strewed with them, they had gathered in tufts on the bushes, and they floated gently in the air.

The joy of this discovery was almost too great for utterance, and was shared by all but Francis, who was sorry to lose his pretty snow-balls; and his mother, to soothe his regret, made the cotton into balls for him to play with, and promised him some new shirts and dresses: then turning to me, she poured out her kind heart in descriptions of all the comfortable things she should make for us, could I construct a spinning-wheel, and then a loom for weaving.

We collected as much cotton as our bags would hold, and my wife filled her pockets

with the seed to raise it in our garden at Tent-House.

It was now time to proceed; and we took a direction towards a point of land which skirted the wood of gourds, and being high commanded a view of the adjacent country. I conceived a wish to remove our establishment to the vicinity of the cotton plantation and the gourd wood, which furnished so many of the utensils for daily use throughout the family. I pleased myself in idea with the view of the different colonies of animals I had imagined, both winged and quadruped; and in this elevation of my fancy I even thought it might be practicable to erect a sort of farm-house on the soil, which we might visit occasionally, and be welcomed by the agreeable sounds of the cackling of our feathered subjects, which would so forcibly remind us of the customs of our forsaken but ever cherished country.

We accordingly soon reached the high-ground, which I found in all respects favourable to my design; behind, a thick forest gradually rose above us, which sheltered us from the north wind, and insensibly declined towards the south, ending in a plain clothed luxuriantly with grass, shrubs, and plants, and watered by a refreshing rivulet, which was an incalculable advantage for our animals of every kind as well as for ourselves.

My plan for a building was approved by

all, and we lost no time in pitching our tent and forming temporary accommodations for cooking our victuals. When we had refreshed ourselves with a meal, we each took up some useful occupation; my wife and the boys went to work with the cotton, which they thoroughly cleaned and cleared from bits of the pods or other foreign substance, and which was then put into the bags and served commodiously at night for bolsters and mattresses. I for my part resolved to look about in all directions, that I might completely understand what we should have to depend upon in this place in point of safety, salubrity, and general accommodation. I had ~~also~~ to find a tree that would suit for the proposed construction of a boat; and lastly, to meet if possible with a group of trees at such fit distances from each other as would assist me in my plan of erecting my farm. I was fortunate enough in no long time to find in this last respect exactly what I wanted, and quite near to the spot we on many accounts had felt to be so enviable: but I was not equally successful for my boat, the trees in the vicinity being of too small a bulk to supply the depth necessary for keeping on the surface of the water. I returned to my companions, whom I found busily employed in preparing excellent beds of the cotton, upon which at an earlier hour than usual we all retired to rest.

CHAPTER XXXV.

*Completion of two farm-houses ;—a lake ;
—the beast with a bill.*

THE trees that I had chosen for the construction of my farm were for the most part one foot in diameter ; their growth was tolerably regular in the form of a parallelogram with its longest side to the sea, the length being twenty four feet, and the breadth sixteen. I cut little hollow places or mortices in the trunks, at the distance of ten feet one above the other, to form two stories ; the upper one I made a few inches shorter before than behind, that the roof might be in some degree shelving : I then inserted beams five inches in diameter respectively in the mortices, and thus formed the skeleton of my building. We next nailed some laths from tree to tree, at equal distances from each other, to form the roof, and placed on them, in mathematical order, a covering composed of pieces of the bark of trees cut into the shape of tiles, and in a sloping position for the rain to run off in the wet season. As we had no great provision of iron nails, we used for the purpose the

strong pointed thorn of the acacia, which we had discovered the day before. This tree, which bears an elegant flower, is known by the name of *Acacia with three thorns*, and it in reality exhibits, growing all together, three strong sharp-pointed thorns, which might easily be used as weapons of defence. We cut down a quantity of them and laid them in the sun to dry, when they became as hard as iron, and were of essential service to our undertaking. We found great difficulty in peeling off a sufficient quantity of bark from trees to cover our roof. I began with cutting the bark entirely round at distances of about two feet all the length of the trunk ; I next divided the intervals perpendicularly into two parts, which I separated from the tree by sliding a wedge under the corners to raise the bark by degrees ; I next placed the pieces on the ground, with stones laid on them to prevent their curving, to dry in the sun ; and lastly, I nailed them on the roof, where they had the appearance of the scales of fishes,—an effect that was not only pleasing to the eye, but reminded us of the roofs of our native land.

On this occasion we made another agreeable discovery : my wife took up the remaining chips of the bark for lighting a fire, supposing they would burn easily ; we were surprised by a delicious aromatic odour which

perfumed the air. On examining the half-consumed substance, we found some of the pieces to contain turpentine, and others gum-mastich, so that we might rely on a supply of these ingredients from the trees which had furnished the bark. It was less with a view to the gratifying our sense of smelling, than with the hope of being able to secure these valuable drugs for making a sort of pitch to complete our meditated boat, that we indulged our earnestness in the pursuit. The instinct of our goats, or the acuteness of their smell, discovered for us another acquisition of a no less pleasing quality ; we observed with surprise that they ran from a considerable distance to throw themselves about on some particular chips of bark which lay on the ground, and which they began to chew and eat greedily. Jack seized a piece also, to find out, as he said, what could be the reason of so marked a preference as the goats had shown. Oh, it is indeed excellent, exclaimed he ; and I perceive that goats are animals of taste ! Only try this little bit, brother Fritz, and tell us if it is not exactly like cinnamon ? Fritz did as he was desired, and was of Jack's opinion. My wife and I then followed their example, and were convinced that it was cinnamon, though not so fine a sort as that from the isle of Ceylon.

This new commodity was certainly of no

great importance to us; but we nevertheless regarded it with pleasure, as an article that would serve to distinguish some day of particular rejoicing. Ernest and Francis asked to taste it also, and agreed with us that the occasional use of it would be agreeable. The tree from which we had taken our bark was old, and the cinnamon was no doubt the coarser flavoured on this account: I remembered to have read, that young trees produce this spice in much greater perfection.

During our next meal we amused ourselves with a retrospect of the different discoveries we had made that day. I had to relate to my wife what I knew on the subject of the nature of these new productions; the turpentine, the mastich, and the cinnamon. I informed her that the two first had been discovered by the Venetians, who had gone so far as the islands of ancient Greece in search of them, and that they had afterwards become articles of commerce. And of what use is turpentine? asked Francis.

Father.—It is used in medicine; also for varnishes, and in the composition of resin; by putting it over the fire and mixing a little oil with it, it makes an excellent kind of pitch, and in this last form it will be of essential service to me for the outer coat of my new boat. It is also useful, applied to the wheels of any sort of carriages.

Ernest.—And the mastich, father?

Father.—This production comes from a tree of the same name; it oozes out in drops and hardens in the sun, something like amber. It is used in perfumes, and as a varnish for porcelain, being soluble in spirits of wine. As to cinnamon, I can only tell you that the best sort is a production of the island of Ceylon; it is gathered from young plants; the outside covering being first taken away, the next coat is the perfect cinnamon, and its smell is quite delicious; it is put to dry in the sun, and it rolls of itself into the shapes in which you must have seen it; they are afterwards tied in small parcels and sewed into cotton bags, which are again inclosed in reed matting; lastly, the parcels are put into buffalos' skins, which are as hard and as impenetrable as horn. By this process the cinnamon is so effectually preserved, that it may be safely transported to any distance. It is used in Europe for imparting a delicious flavour to the more delicate kinds of liqueurs and sweetmeats.

When our meal and the lecture were both ended, we resumed with ardour our undertaking of the farm, which we continued without interruption for several days.

We formed the walls of our building with matted reeds interwoven with pliant laths to the height of six feet; the remaining space

to the roof was inclosed with only a simple grating, that the air and light might be admitted. A door was placed in the middle of the front. We next arranged the interior, with as much convenience as the shortness of the time and our reluctance to use all our timber would allow ; we divided it half way up by a partition wall, into two unequal parts ; the largest was intended for the sheep and goats, and the smallest for ourselves, when we should wish to pass a few days here. At the further end of the stable we fixed a house for the fowls, and above it a sort of hay-loft for the forage. Before the door of entrance we placed two benches, contrived as well as we could of laths and odd pieces of wood, that we might rest ourselves under the shade of the trees, and enjoy the exquisite prospect which presented itself on all sides. Our own apartment was provided with a couple of the best bedsteads we could make of twigs of trees, raised upon four legs two feet from the ground, and these were destined to receive our cotton mattresses. Our aim was to content ourselves for the present with these slight hints of a dwelling, and to consider hereafter what additions either of convenience or ornament could be made, such as plastering, &c. &c. All we were now anxious about, was to provide a shelter for our animal colonists, which should

encourage and fix them in the habit of assembling every evening in one place. For several days, at first, we took care to fill their troughs with their favourite food mixed with salt, and we agreed that we would return frequently to repeat this indirect mode of invitation for their society, till they should be entirely fixed in their expectation of finding it.

I had imagined we could accomplish what we wished at the farm in three or four days; but we found in the experiment that a whole week was necessary, and our victuals fell short before our work was done. We began to consider what remedy we could apply to so embarrassing a circumstance; I could not prevail upon myself to return to Falcon's Stream before I had completed my intentions at the farm, and the other objects of my journey. I had even come to the determination of erecting another building upon the site of Cape Disappointment; I therefore decided that on this trying occasion I would invest Fritz and Jack with the important mission. They were accordingly dispatched to Falcon's Stream and to Tent-House, to fetch new supplies of cheese, ham, potatoes, dried fish, manioc bread, for our subsistence, and also to distribute fresh food to the numerous animals we had left there. I directed one to mount the onagra, and the other the

buffalo. "My two knight-errants, proud of their embassy, set off with a brisk trot ; they at my desire took with them the old ass to bring the load of provisions. Fritz was to lead him with a bridle, while Jack smacked a whip near his ears to quicken his motions ; and certainly, whether from the influence of climate or the example of his companion the onagra, he had lost much of his accustomed inactivity : and this was the more important, as I intended to make a saddle for my wife to get on his back and relieve herself occasionally from the fatigue of walking.

During the absence of our purveyors, I rambled with Ernest about the neighbouring soil, to make what new discoveries I could, and to procure if possible some cocoa-nuts or other valuable addition to our store of provisions.

We followed the winding of a river we had remarked, and which conducted towards the centre of the wall of rocks ; our course was here interrupted by an extensive marsh which bordered a small lake, the aspect of which was enchantingly picturesque. I perceived with joyful surprise that the whole surface of this swampy soil was covered with a kind of wild rice, ripe on the stalk, and which attracted the voracity of large flocks of birds. As we approached, a loud rustling was heard, and we distinguished on the wing

bustards, Canada heath-fowl in abundance, and great numbers of smaller birds, with the names of which we were unacquainted. We succeeded in bringing down five or six of them, and I was pleased to remark in Ernest a justness of aim that promised well for the future. The habits of his mind discovered themselves on this as on many previous occasions; he betrayed no ardour, he did every thing with a slowness that seemed to imply dislike; yet the cool deliberation and constancy he applied to every attempt he had to engage in, soeffe ctually assisted his judgement, that he was sure to arrive at a more perfect execution than the other boys. He had practised but little in the study of how to fire a gun to the best advantage; but Ernest was a silent inquirer and observer, and accordingly his first essays were generally crowned with success. In this affair, however, of the birds, his skill would have proved fruitless, if Jack's young jackal, which had followed us in our walk, had not plunged courageously into the swamp and brought out the birds as they fell.

At a small distance was also master Knips, who had taken his post on Ponto's back. Presently we saw him jump off and smell earnestly along the ground among some thick-growing plants, then pluck off something with his two paws and eat of it vor-

ciously. We ran to the spot to see what it could be, when, to the infinite relief of our parched palates, we found he had discovered there the largest and finest kind of strawberry, which is called in Europe the *Chili* or *pine strawberry*.

On this occasion the proud creature, man, generously condescended to be the imitator of a monkey: we threw ourselves upon the ground, as near to Knips as we could creep, and devoured as fast as we could swallow, till we felt sufficiently refreshed. Many of these strawberries were of an enormous size, and Ernest with his usual coolness, and I must needs confess there was no want of his constancy either, devoured an immense quantity: he however recollected his absent friends, and filled a small gourd-shell we had brought with us with the finest fruit, and then covered them with leaves and tied them down with a tendril from a neighbouring plant, that he might present them in perfection to his mother. I, on my part, gathered a specimen of the rice to offer, that she might inform us if it was fit for culinary purposes.

After pursuing our way a little further along the marsh, we reached the lake, which we had descried with so much pleasure from a distance, and whose banks being overgrown with thick underwood, were necessarily con-

cealed from the momentary view we had leisure to take of surrounding objects, particularly as the lake was situated in a deep and abrupt valley. No traveller who is not a native of Switzerland can conceive the emotion which trembled at my heart, as I contemplated this limpid, azure, undulating, body of water, the faithful miniature of so many grand originals, which I had probably lost sight of for ever! My eyes swam with tears!—How glad I am to see a lake! I could almost think myself in Switzerland, father, said Ernest.

Alas, a single glance upon the surrounding pictures, the different characters of the trees, the vast ocean in the distance, destroyed the momentary illusion, and brought back our ideas to the painful reality that we were strangers in a desert island!

Another sort of object now presented itself to confirm the certainty that we were no longer inhabitants of Europe; it was the appearance of a quantity of swans which glided over the surface of the lake; but their colour, instead of white, like those of our country, was a jetty black²³; and their plumage had so high a gloss as to produce, reflected in the water, the most astonishing effect. The six large feathers of the wing of this bird are white, exhibiting a singular contrast to the rest of the body; in other respects these

creatures were remarkable, like those of Europe, for the haughty gracefulness of their motions, and the voluptuousness of their nature. We remained a long time in silent admiration of the scene; some of the swans pursued their course magnificently on the bosom of the blue water; others stopped and seemed to hold deliberations with their companions, or to admire themselves, or caress each other; many young ones followed in the train of the parent bird, who frequently turned half round in execution of her watchful and matronly office. This was a spectacle which I could not allow to be interrupted by bloodshed, though Ernest, rendered a little vain by his success and my encomiums, would have been ready to fire upon the swans, if I had not absolutely forbidden the attempt; at the same time I soothed him with the promise that we would endeavour to obtain a pair of the interesting creatures for our establishment at Falcon's Stream.

Ponto just at this moment dragged out of the water a bird he had seized; we ran to examine it, and our surprise was extreme on remarking the singularity of its appearance. It was somewhat in shape like an otter, and, like the tribe of water-birds, web-footed: its tail was long and erect, and covered with a soft kind of hair; the head was very small,

and the ears and eyes were almost invisible; to these more ordinary characters was added, a long flat bill, like that of a duck, which protruded from its snout, and produced so ludicrous an effect that we could not resist a hearty laugh. All the science of the learned Ernest, joined with my own, was insufficient to ascertain the name and nature of this animal. We had no resource but to remain ignorant; in the mean time we christened it by the name of *Beast with a bill*, and decided that it should be carefully stuffed and preserved.

We now began to look for the shortest path for rejoining our companions at the farm, which we reached at the same time with Fritz and Jack, who had well performed the object of their journey, and were received by all with satisfaction. We, on our parts, produced our offering of strawberries and our specimen of rice, which were welcomed with shouts of pleasure and surprise.

The beast with a bill was next examined with eager curiosity²⁴, and then laid aside for the plan I had formed. My wife proceeded to pluck and salt the birds we had killed, reserving one fresh for our supper, which we partook of together upon the benches before the door of our new habitation. We filled the stable with forage, laid a large provision of grain for the fowls within their house, and began arrangements for our departure.

The following day we took a silent leave of our animals and directed our course towards Cape Disappointment. On entering Monkey Wood, innumerable animals of the species from which it derives its name began to scamper away, grinding their teeth in sign of anger at our approach. We pursued our way, and arrived shortly after at the eminence we were in pursuit of in the vicinity of Cape Disappointment ; we ascended it, and found it in every respect adapted to our wishes. From this eminence we had a view over the country which surrounded Falcon's Stream in one direction, and in others of a richly diversified extent of landscape comprehending sea, land, and rocks. When we had paused for a short time upon the exhaustless beauties of the scene, we agreed with one voice that it should be on this spot we would build our second cottage. A spring of the clearest water issued from the soil near the summit, and flowed over its sloping side, forming, in its rapid course, agreeable cascades : in short, every feature of the picture contributed to form a landscape worthy the homage of a taste the most delicate and refined. I presented my children with an appropriate word.—Let us build here, exclaimed I, and call the spot—*Arcadia*²⁵ ; to which my wife and all agreed.

We lost no time in again setting to work upon this additional arduous undertaking ;

our experience at the farm enabled us to proceed in it with incredible rapidity, and our success was in every respect more complete. The building contained a dining-room, two bed-chambers, two stables, and a store-room for preserving all kinds of provisions for man and beast. We formed the roof square, with four sloping sides, and the whole had really the appearance of a European cottage, and was finished in the short space of six days.

CHAPTER XXXVI.

The boat;—progress in the abode of rocks.

OUR Arcadia being entirely completed, what remained to be done was to fix on a tree fit for my project of a boat. After much search, I at length found one of prodigious size, and in most respects suitable to my views.

It was, however, no very encouraging prospect I had before me, being nothing less than the stripping off a piece of the bark that should be eighteen feet in length and five in diameter; and now I found my rope ladder of signal service; we fastened it by one end to the nearest branches, and it enabled us to work with the saw, as might be necessary, at any height from the ground. Accordingly, we cut quite round the trunk in two places, and then took a perpendicular slip from the whole length between the circles; by this means we could introduce the proper utensils for raising the rest by degrees, till it was entirely separated. We toiled with increasing anxiety, at every moment dreading that we should not be able to preserve it from breaking, or uninjured by our tools. When we had loosened about half,

we supported it by means of cords and pulleys; and when all was at length detached, we let it down gently, and with joy beheld it lying safe on the grass. Our business was next to mould it to our purpose, while the substance continued moist and flexible.

The boys observed that we had now nothing more to do, than to nail a plank at each end, and our boat would be as complete as those used by the savages; but, for my own part, I could not be contented with a mere roll of bark for a boat; and when I reminded them of the paltry figure it would make following the pinnace, I heard not another word about the further pains and trouble, and they asked eagerly for my instructions. I made them assist me to saw the bark in the middle, the length of several feet from the ends; these two parts I folded over till they ended in a point, naturally raised; I kept them in this form by the help of the strong glue I had before made from fish-bladders, and pieces of wood nailed fast over the whole: this operation tended to widen the boat in the middle, and thus render it of too flat a form; but this we counteracted by straining a cord all round, which again reduced it to the due proportion, and in this state we put it in the sun, to harden and fix. Many things were still wanting to the completion of my undertaking, but I

had not with me proper utensils : I therefore dispatched the boys to Tent-House, to fetch the sledge, and convey it there for our better convenience in finishing.

Before our departure for Tent-House we collected several new plants for the kitchen-garden ; and lastly, we made another trip to the narrow strait at the end of the wall of rocks, resolved, as I before mentioned, to plant there a sort of fortification of trees, which should produce the double effect of discouraging the invasion of savages, and of allowing us to keep our pigs on the other side, and thus secure our different plantations from the chance of injury. We accomplished all these intentions to our entire satisfaction, and in addition we placed a slight draw-bridge across the river beyond the narrow pass, which we could let down or take up at pleasure on our side. We now hastened our return to Arcadia, and after a night's repose we loaded the sledge with the boat and other matters, and returned to Tent-House.

As soon as we had dispatched some necessary affairs, we resumed the completion of the boat : in two days she had received the addition of a keel, a neat lining of wood, a small flat floor, benches, a small mast and triangular sail, a rudder, and a thick coat of pitch on the outside, so that the first time we

saw her in the water, we were all in ecstasies at the charming appearance she made.

Our cow in the mean time had brought forth a young calf, a male; I pierced its nostril, as I had so successfully practised with the buffalo, and it gave promise of future docility and strength.

We had still two months in prospect before the rainy season, and we employed them for completing our abode in the grotto, with the exception of such ornaments as we might have time to think of during the long days of winter. We made the internal divisions of planks, and that which separated us from the stables, of stone, to protect us from the offensive smell occasioned by the animals. Our task was difficult, but from habit it became easier every day. We took care to collect or manufacture a sufficient quantity of all sorts of materials, such as beams and planks, reeds and twigs for matting, pieces of gypsum for plaster, &c. &c. At length the time of the rainy season was near at hand, and this once we thought of it with pleasure, as the period that would put us in possession of the enjoyments we had procured by such unremitting industry and fatigue. We had an inexpressible longing to find ourselves domiciliated and at leisure to converse together on the subject of all the wondrous be-

nefits bestowed upon us by an ever-watchful and beneficent Providence !

We plastered over the walls of the principal apartments on each side with the greatest care, finishing them by pressure with a flat smooth board, and lastly a wash of size, in the manner of the plasterers in Europe. This ornamental portion of our work amused us all so much, that we began to think we might venture a step further in the question of European luxury, and we agreed that we would attempt to make some carpets with the hair of our goats. To this effect, we smoothed the ground in the rooms we intended to distinguish, with great care; then spread over it some sail cloth, which my wife had joined in breadths, and fitted exactly; we next strewed the goats' hair, mixed with wool obtained from the sheep, over the whole; on this surface we threw some hot water, in which a strong cement had been dissolved; the whole was then rolled up, and was beaten for a considerable time with hard sticks; the sail-cloth was now unrolled, and the inside again sprinkled, rolled, and beaten as before; and this process was continued till the substance had become a sort of felt, which could be separated from the sail-cloth, and was lastly put in the sun to harden. We thus produced a very tolerable

substitute for that enviable article of European comfort, a carpet: of these we completed two; one for our parlour, and the other for our drawing-room, as we jocosely named them, both of which were completely fit for our reception by the time the rains had set in.

All we had suffered during this season in the preceding year doubled the value of the comforts and conveniences with which we were now surrounded. We were never tired of admiring our warm and well-arranged apartments, lighted with windows, and well secured with doors from wind and rain, and our granary filled with more than a sufficient winter supply of food for ourselves and for our cattle. In the morning, our first care was to feed and give them drink; and both these were now constantly at hand, without the pains of fetching or preparing: after this we assembled in the parlour, where prayers were read, and breakfast immediately served: we then adjourned to the common room, where all sorts of industry went forward, and which contained the spinning-wheel and loom I had, though with indifferent success, constructed to gratify my wife. Here all united in the business of producing different kinds of substances, which she afterwards made into apparel. I had also contrived to construct a turning machine, having used for the purpose one of the small cannon

wheels, with the help of which the boys and I managed to produce some neat utensils for general use. After dinner, our work was resumed till night, when we lighted candles; and as they cost no more than our own trouble in collecting and manufacturing the materials, we did not refuse ourselves the pleasure of using many at a time, to admire their lights splendidly reflected by the crystals every where pendent. We had formed a convenient portion of our dwelling into a small chapel, in which we left the crystals as produced by nature; and they exhibited a wondrous assemblage of colonnades, porticos, altars, which, when the place was lighted to supply the want of a window, presented a truly enchanting spectacle. Divine service was performed in it regularly every Sunday: I had raised a sort of pulpit, from which I pronounced such discourses as I had framed for the instruction of my affectionate group of auditors. The remainder of this day of rest was employed as before, in such recreations as tended to sustain cheerfulness, and fortify the bodily health of all. Jack and Francis had a natural inclination for music. I did the most I could in making a flageolet apiece for them of two reeds, on which they so frequently practised as to attain a tolerable proficiency; they accompanied their mother, who had a sweet-toned voice, the volume of

which was doubled by the echoes of the grottos, and they produced together a very pleasing little concert.

Thus, as will be perceived, we had made the first steps towards a condition of civilization: separated from society, condemned perhaps to pass the remainder of life in this desert island, we yet possessed the means of happiness; we had abundance of all the necessaries, and many of the comforts desired by human beings! We had fixed habits of activity and industry; we were in ourselves serene and contented; our bodily health and strength increased from day to day; the sentiment of tender attachment was perfect in every heart: we every day acquired some new and still improving channel for the exertion of our physical and moral faculties; we everywhere beheld, and at all times acknowledged, marks of the divine wisdom and goodness; our minds were penetrated with love, gratitude, and veneration for the celestial Providence who had so miraculously rescued and preserved us, and conducted us to the true destination of man—to provide for the wants of his offspring by the labour of his hands: I trusted in the same goodness for restoring us once more to the society of our fellow-men, or for bestowing upon us the means of founding in this desert a happy

and flourishing colony of human beings, and waiting in silence for the further manifestation of his holy will, we passed our days in a course of industry, innocent pleasures, and reciprocal affection. Nearly two years have elapsed without our perceiving the smallest trace of civilised or savage man ; without the appearance of a single vessel or canoe upon the vast sea, by which we are surrounded. Ought we then to indulge a hope that we shall once again behold the face of a fellow-creature?—We encourage serenity and thankfulness in each other, and wait with resignation the event!

Postscript by the Editor.

I HAVE presented the public, and in particular the sons of families, with the part I had in my possession of the journal of the Swiss pastor, who, with his family, were shipwrecked on a desert island. It cannot escape the observation of the parents who will read the work, that it exhibits a lively picture of the happiness which does not fail to result from the practice of moral virtues:—thus, in a situation that seemed calculated to produce despair, we see piety, affection, industry, and a generous concern for fellow-sufferings, capable of forming the basis of an unexpected state of serenity and happiness. We also see the advantage of including in the education of boys, such a knowledge of the natural productions of the earth, of the various combinations by which they may be rendered serviceable, and of the use of tools of every kind, as may qualify them to assist others, or preserve themselves under every possible occurrence of adversity or danger. It now remains for me to inform the reader by what means the journal of the Swiss pastor came into my possession.

Three or four years subsequent to the occurrence of the shipwreck of the pastor and his family, an English transport was driven

by the violence of a tempest upon the same shore. The name of the vessel was the *Adventurer*, *Captain Johnson*: it was on a voyage from New Zealand to the eastern coast of North America, by Otaheita, in the South Seas to fetch a cargo of skins and furs for China, and to proceed from Canton to England. A violent tempest of several days' duration drove it from its track. The vessel beat about in unknown seas for many days, and was now so injured by the weather, that the best hope of the captain and his company was to get into some port where they might refit. They at length discovered a rocky coast; and as the wind had somewhat abated, they made with all speed for the shore; when within a short distance, they cast their anchor, and put out a boat containing some of the officers, to examine the coast and find a place for landing: they rowed backward and forward for some time without success, from the rocky nature of the soil; at length they turned a promontory, and perceived a bay whose calm waters seemed to invite their approach; this was the *Safety Bay* of the wrecked islanders; the boat put on shore, and the officers with astonishment beheld the traces of the abode of man. A handsome well-conditioned pinnace and a small boat were there at anchor: near the strand, under a rock was a tent, and further on, in the rock, a house-door and

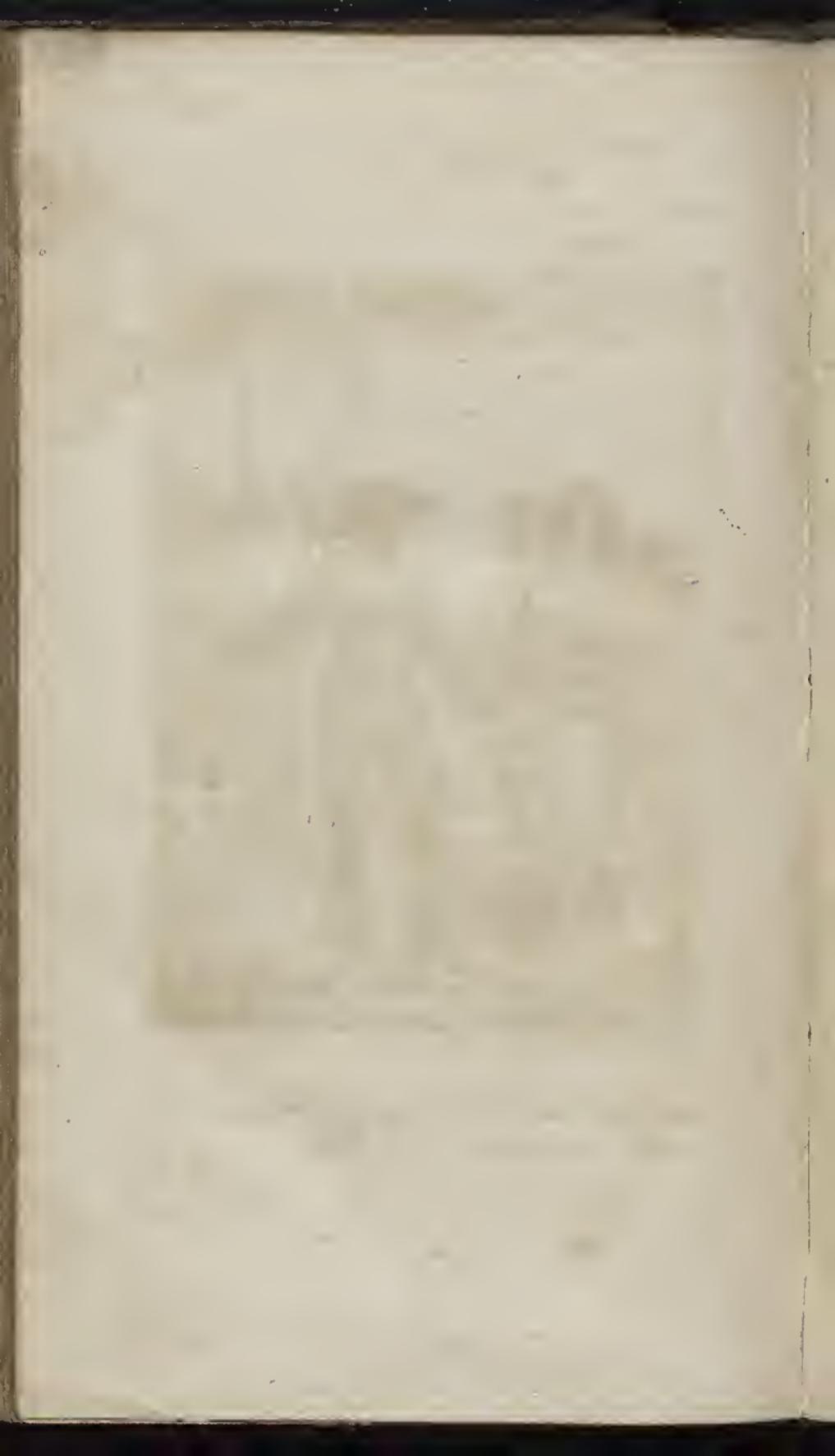


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*The officers advanced towards the spot, &
were met half-way by the Pastor.*

p. 368.



windows announced European comforts and workmanship. The officers advanced towards the spot, and were met half-way by a man of middle age, dressed like a European and armed with a gun ; the stranger accosted them with friendly tones and gestures ; he spoke first German, and then some words in English. Lieutenant Bell, one of the English officers, who spoke the German language, answered. A mutual confidence immediately ensued. We need not add, that the stranger was the Family Robinson, whose wife and children happened at the moment to be at Falcon's Stream :—he had discovered the English ship in the morning with his glass ; and unwilling to alarm his family, he had come, perceiving she bore that way, alone to the coast.

After an interchange of cordial feelings, and a hospitable reception of the officers at the grotto, the Swiss pastor put his journal into the hands of Lieutenant Bell, to be conveyed to Captain Johnson, that he also might become acquainted with the story of the solitary islanders. After an hour's conversation the newly found friends separated, in the pleasing expectation of meeting again on the following day.—But Heaven had otherwise ordained.

During the night the tempest revived with new terrors. The Adventurer could not be

held at anchor, but was obliged to steer for safety to the bosom of the ocean. As there was no favourable change of weather for several days, the vessel was driven so far from the coast of Safety Bay, as to leave no possibility of returning, and Captain Johnson was compelled to renounce the gratification of seeing this extraordinary family, or of proposing to convey them all to Europe.

Captain Johnson brought the journal of the Swiss pastor to England, from whence it was transmitted to a friend in Switzerland, who has deemed its contents an instructive lesson to the world. There was found attached to the journal a rough sketch of the features of the island, which Lieutenant Bell thinks the Swiss pastor informed him was executed by his son Fritz.—The editor subjoins it, supposing it will be considered an object worthy of the interest of his young readers.

NOTES.

¹ *Penguin*; a bird of the goose kind, found near the Straits of Magellan. It is about the size of the Indian cock; the feathers on the back are black, and on the belly white. It has a large neck, circled round with a white collar. Properly speaking, it has no wings, but two pinions hang like two little arms from its sides, having no feathers beyond the joint. These pinions serve the purpose of fins in enabling the penguin to swim with ease, but it cannot fly. The tail is short, the feet black; the beak narrow, and rather larger than that of the raven. The bird carries its head erect in walking, and the pinions fall at its side; so that when many of them are seen in a line along the shore, where they are accustomed to assemble in large numbers, they may from a distance be mistaken for little men. Their flesh is well-tasted, but their skin is so tough that, but for the extreme stupidity of their nature, it would be difficult to destroy them.—See *Valmont de Bromare*.

² *Great bustard*; of the gallinaceous order. This is the largest bird of European climates, the male being four feet in length from the beak to the tail, seven in breadth with the wings extended, and weighing about thirty-five pounds. The females are commonly a third less in every respect. Though the wings of the bustard are small in proportion to the body, yet the bird can raise and sustain itself in the air, but cannot proceed out of a straight direction. It loves open spacious plains, and avoids the water. The bustard is timid and difficult of approach; it however defends itself furiously when at-

tempted to be caught, by beating the enemy with its legs. If taken when young, it is easily tamed, and brought to feed with other poultry. The most common colour of this bird is black, slightly tinged with red on the back, and the under parts white mixed with fawn-colour; a down of bright pink appears at the roots of the feathers. There are many kinds of this animal, both indigenous and exotic: the African; the tufted; the blue; the white bustard, &c.—See *New Dictionary of Natural History*.

³ *Yguana*; a reptile of the family of lizards; it is found in South America and its islands. The animal is from four to six feet in length, of which the tail makes at least half. The head is small, flattened at the sides, covered with scales, and provided with large jaws and sharp-pointed teeth. A protuberance like a wen appears in the front of the neck. The body is every where clothed with hard scales. The colour of this creature is variable; its most common hue is green tinged with yellow; sometimes it exhibits gray or blue tints, and at others a mixture of all these colours together, like the cameleon, which the yguana greatly resembles.—See *New Dictionary of Natural History*.

⁴ *Lizards*; The whole family are found to love music passionately; a sure means of attracting them is by musical sounds or whistling; in this manner the yguana is subdued. When the musician is sufficiently near, he plunges the end of a switch into the nostril of the animal, who dies instantly without pain.—*Dictionary of Natural History*.

⁵ *Tetrix. (Canadian Heath Cock.)* This bird is found also in Maryland, Pennsylvania, and adjacent parts. Its modes of life are similar to the heath-cock of Europe, and is called by some authors simply the *crested heath-cock*. The head and neck are of a deep glossy black, which in all other parts is tinctured with green. The bill is covered with a yellow skin, except at the extremity, where it is bare and black; the eyes are also encircled with a skin of

the same colour. On the top of its head there is a crest formed of several handsome feathers two inches and a half in length. The feathers on the neck, which are also of a beautiful fibre form, fall gracefully down; but when the creature is agitated, they as well as those on the head become erect. When he wishes to call his females round him, the feathers assume this state; he trains his wings on the ground and spreads his tail into the form of a wheel, and in the velocity of his motions makes a singular kind of noise like distant thunder or a muffled drum.—*New Dictionary of Natural History.*

⁶ *Myrica cerifera*, or *Waxtree*; it grows in Louisiana, and a smaller kind in Carolina. It is a pretty aquatic shrub and bears whitish-coloured flowers, the fruit of which hangs in small clusters. It is about the height of a very small cherry-tree, and in the form and smell of the leaves resembles the myrtle. The berries are of a gray colour, contain kernels which are covered with a kind of wax, of which the natives make good candles. Naturalists are of opinion that it might be easily made to flourish in other climates.—See *Valmont de Bromare*, and *Dictionary of Natural History*.

⁷ *Tuiete*. This is the smallest kind of Brazilian parrot. There is an infinite variety in their plumage.

⁸ Among others, M. Huber of Geneva: he has published a volume of his observations upon ants, no less agreeable than instructive in the perusal.

⁹ See *History of the Insects of America*. By Mademoiselle Merian.

¹⁰ *Caoutchouc*; The tree which furnishes elastic gum; it is called by the natives of Brazil, where it is produced, *Hhevé*.

¹¹ Of all the palm-trees which are natives of Asia, the *sago-palmist* is one of the most useful and interesting: a liquor runs from incisions made in its

trunk, which readily ferments, and is both salutary and agreeable for drinking. The marrow or pith of the tree, after undergoing a slight preparation, is the substance known by the name of sago in Europe, and so eminently useful in the list of nutritious food for the sick. The trunk and large leaves of the palmist-sago are a powerful resource in the construction of buildings; the first furnishes planks for the carpenter, and the second a covering for the roof. From the last are also made cord, matting, and other articles of domestic use.

¹² This species of the *orange*, or rather of the *citron-tree*, originally a native of Medea and Assyria, reaches in those countries to the astonishing height of sixty feet.—*Dictionary of Natural History*.

¹³ *Cabbage palmist*.—Palmist is the generical and vulgar name for all palm-trees which bear at their tops a vegetable production which may be eaten before it has arrived at a state of maturity. What is called cabbage, is the closely-folded leaves, which assume the form of that plant, at the summit of the tree, which attains to a prodigious height in the Society Islands. This cabbage substance, when young, has a delicate flavour not unlike an artichoke, and is excellent fried; but the tree dies when the cabbage is cut off. This kind of palm, and indeed all others, has numerous uses. On cutting the cabbage, the tree yields some pints of a liquor similar to champaign, and which by the process of fermentation will afterwards produce good vinegar; and by distillation, a strong alcohol or brandy. Its seed or kernel furnishes a thick sweet oil or vegetable butter. The covering of the kernels is made into vessels and cups of all sorts, and is as strong as porcelain. The leaves are used as tiles on the roofs of houses, for parasols and coverings for the head, and may be written upon like paper. Its ligneous stalk produces large threads for sewing, and for string. Some of the palms, the cocoa-palmist in particular, yield a cool sweet liquid

which by evaporation leaves a sugar of a tolerably good quality. In a word, the palm is a far-extended good, an inestimable treasure bestowed by a bountiful Providence on the inhabitants of the soil which produces it.

¹⁴ *Buffalo*; a ruminating quadruped of the ox species, which it nearly resembles in form and stature; the head is larger, the snout longer, and its horns, which almost touch at the root, spread to a distance of five feet at their extremities: its ears are also larger and pointed. The whole form of the buffalo, and no less its motions, announce amazing vigour and strength; but the enormous size of the head, the singular curvatures of its long horns, under which appears a large tuft of bristly hair of a yellowish white colour, give a terrific ferocity and wildness to its physiognomy. The animal inhabits hot countries. It is used in Italy as a domestic beast for tillage and drawing. The method adopted for taming the buffalo is by fixing a ring in the nostril when about three years old. The operator contrives to entangle the legs with a string, and the animal falls to the ground; several men fall upon it and confine the legs, while others make the wound and pass the ring; it is then left: it runs furiously from place to place, and endeavours to get rid of the ring; in a short time it begins to be accustomed to its fate, and by degrees to learn obedience. A cord is fastened to the ring to lead the buffalo; if it resists, it suffers pain; it therefore prefers to yield, and thus is brought to follow a conductor willingly. After a certain time, the ring falls off, but the creature has, ere this, become attached, and will follow its master. Nothing is more common than to see a buffalo return from a distance of forty miles to seek him. Their young keepers give them a name, which they never fail to answer to, and on hearing it pronounced they stop short in the midst of a company of their species. Troops of buffaloes are found together in the plains.

of America and Asia that are washed by rivers; they do not attack men unless provoked; but the report of a gun renders them furious, and extremely dangerous: they run straight to the enemy, throw him down with their horns, and do not desist till he is crushed to death in the struggle. A red colour irritates them, and they are hunted with infinite care and precaution.—*Dictionary of Natural History.*

¹⁵ *Prickly palm, or Adam's needle.*—The leaves of this tree are sometimes ten feet in length; they are winged in form, and the petals are furnished with long sharp thorns, which stay on the trunk even when the leaves are decayed, and form, from their numbers and strength, a sure defence against being approached. The fruit of this tree is larger than a pigeon's egg, of an oblong shape, of a yellow colour, and like velvet to the touch. A yellow oily substance is found in the covering of the fruit, which is greedily eaten by monkeys, cows, and other animals. An oil for cooking or for the lamp is also extracted from it.

Dwarf palm.—The fruit is yellow, and contains grains inclosed in a cuticle, somewhat sour to the taste. Savages make an agreeable kind of beverage from them. The leaf, like the former, is thorny.—*Dictionary of Natural History.*

¹⁶ *Malabar or Indian Eagle*, is small; not above the size of a large pigeon; but in the smallness of its volume elegance of symmetry and beauty of plumage are united; the animation of its eyes, its lively movements, the boldness of its look and attitudes, give to its whole physiognomy the appearance of pride and courage. The Malayese have made it one of their idols, and offer it a kind of worship. A tuft of large feathers of a dazzling white, the lower part of which is of a deep shining black, covers the head, the neck, and all the breast of this handsome bird; the rest of the plumage is of a very bright chesnut-colour, with the exception of the tip of the six first

feathers of each wing, which is black. The beak is ash-coloured, and of a yellowish green at the point ; its membrane is blue, feet yellow, talons black. This species is found in Malabar, Visapour, the Mogul Empire, &c. In voracity it does not fall short of any other.—*Dictionary of Natural History.*

¹⁷ Mr. Huber Lullin, of Geneva, has published an excellent treatise on the economy of *bees* : he has given the most singular and best-attested circumstances of the queen bee ; but what more astonishes is, that he, who has thrown such lights on this attractive object of natural history, is blind.

¹⁸ *Onagra*, *Œigitai* and *Koulan* ;—apparently different names for the same animal, varying according to the countries where, it is found and authors who have spoken of it : in shape and structure it holds the midway betwixt the horse and ass ; its head is strong and erect in the state of rest ; it proudly snuffs the air in its course, which is more fleet than the swiftest horse. Its neck finely turned, chest full and open, back long, spine concave and rough, haunches taper, hoofs like the ass, mane short and thick, the jaw containing thirty-four teeth, tail two feet long, and exactly like a cow's, shoulders narrow and bare of flesh : it has great suppleness in all its members and motions. The hair is mostly of a yellowish brown ; a reddish yellow covers the fore-part of the head, and between the legs ; the mane and tail are black. Along the back is a dark-brown stripe, that grows broader from the loins upwards, and becomes narrower towards the tail. In winter its hair is long, curled, waving ; in summer short and glossy. These animals stray in numbers over the vast deserts and open plains abounding with saline herbage : they never approach the woods or mountains. They have the senses of hearing and smelling in perfection. Their neighing, somewhat peculiar, is much louder than that of the horse. They are timid and wild, and their chief defence is in their speed ; yet they are of

a peaceful, social nature. They commonly troop together from twenty to thirty, sometimes a hundred: each troop has its leader that watches over its safety, conducts it, and gives the signal of flight when danger is near. The token of alarm is bounding thrice round the object of their fear. If their leader is killed, (and he frequently is, by approaching closer to the hunters than the rest,) the troop disperses, and it is easy to kill and take them. The Mongou Tartars highly prize the flesh, which they find delicious; but the ceigitai has not yet been tamed, even when taken young. Could it be domesticated, it would doubtless be a prime beast for the saddle, but it is of an untameable disposition; when the utmost attempts have been made to subdue them, they have died in breaking rather than submit to the restraint. If our Swiss Robinson succeeded by the extraordinary means he specifies, it was a complete triumph. The name of ceigitai, applied to the onagra or wild ass in the countries where it is most common, comes from the word *dshiggetei*, which in the Tartar language means *long ears*: in fact its ears are very long, but more erect, and better shaped, than those of the ass.

¹⁹ *Phormiom*, or *Flax-plant*;—a plant of New Zealand made known by Cook. The inhabitants of that island get from its leaves a very strong flax, with which they make stiffs, nets, ropes, &c. They are two or three feet long, two inches broad, shaped like a sword. Steeped in water, they produce fibres longer and stronger than those of flax, and which are equal in fineness. The climate where this useful plant is found, inclines one to think it might be cultivated with success in Europe, and turned to considerable account. When these leaves are opened upon the plant, an inodorous gum issues from them, which is transparent, of a straw-colour, and in every respect similar to gum arabic.

²⁰ *Sal-gem*;—a name given to a kind of salt harder than common salt, and which sometimes has the

transparency and colour of precious stones. It is found invariably in the same soil as gypsum, in the neighbourhood of which constant observation has proved it to be never wanting ; and even the strata of salt and gypsum frequently alternate. The sal-gem forms itself sometimes into large undivided beds, sometimes it runs in large detached cubes, behind beds of clay and rock. The mines (I may say the quarries) of sal-gem are found at every height, and now and then on a level with the plains. In all parts of the known world no production of nature is more abundant than salt. Most of the sal-gem mines in Spain and England are of several hundred feet extent. The town of Cardona in Spain is situated at the foot of a rock of solid salt, rising almost perpendicular to the height of four or five hundred feet, without interstice, fissure, or separate layer. This immense mass of salt is about a league in circuit : its depth, and consequently the bed on which it rests, is unknown. From top to bottom the salt is of the purest white, or of a light transparent blue. This prodigious mountain of salt, quite free from gypsum and other extraneous matter, is the only one of the kind in Europe. In the county of Chester in England, near the Irish sea, is a very extensive mine of sal-gem behind a ledge of rock ; and after having worked through twenty-five feet of salt, in several places of a fine deep red, from twelve to fifteen feet of rock again appeared, and salt under that ; a fact which destroys the hypothesis of sal-gem being produced from saline lakes dried up.—*Dictionary of Natural History.*

*¹ *Sea Dog* ; a sea fish ; partakes in some respects of the nature of the shark.—See *Dictionary of Natural History.*

*² *Gypsum*.—A mineral substance composed of chalk and sulphurous acid : in strictness it may be considered as a neutral salt ; but being soluble only in a small degree, and having the external character

of stone, mineralogists class it as a stony substance. It has abundance of varieties.

²³ *Black Swan* ;—Discovered by M. de la Billardiere on a lake of New Zealand.

²⁴ *Beast with a bill*.—This singular creature was, like the last, discovered in a lake of New Zealand ; a particular account of it may be found in Blumenbach's Natural History, published in Germany.

²⁵ *Arcadia*, according to the poets was the most beautiful and the happiest of all countries.

THE END.

ERRATUM.

Page 120, line 15, for *Fetras*, read *Tetrix*.

